

LOGINID:SSSPTA1642BJF

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 SEP 09 ACD predicted properties enhanced in REGISTRY/ZREGISTRY
NEWS 4 OCT 03 MATHDI removed from STN
NEWS 5 OCT 04 CA/CAPLUS-Canadian Intellectual Property Office (CIPO) added
to core patent offices
NEWS 6 OCT 13 New CAS Information Use Policies Effective October 17, 2005
NEWS 7 OCT 17 STN(R) AnaVist(TM), Version 1.01, allows the export/download
of CAPLUS documents for use in third-party analysis and
visualization tools
NEWS 8 OCT 27 Free KWIC format extended in full-text databases
NEWS 9 OCT 27 DIOGENES content streamlined
NEWS 10 OCT 27 EPFULL enhanced with additional content
NEWS 11 NOV 14 CA/CAPLUS - Expanded coverage of German academic research
NEWS 12 NOV 30 REGISTRY/ZREGISTRY on STN(R) enhanced with experimental
spectral property data
NEWS 13 DEC 05 CASREACT(R) - Over 10 million reactions available
NEWS 14 DEC 14 2006 MeSH terms loaded in MEDLINE/LMEDLINE
NEWS 15 DEC 14 2006 MeSH terms loaded for MEDLINE file segment of TOXCENTER
NEWS 16 DEC 14 CA/CAPLUS to be enhanced with updated IPC codes
NEWS 17 DEC 16 MARPATprev will be removed from STN on December 31, 2005
NEWS 18 DEC 21 IPC search and display fields enhanced in CA/CAPLUS with the
IPC reform
NEWS 19 DEC 23 New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/USPAT2

NEWS EXPRESS JANUARY 03 CURRENT VERSION FOR WINDOWS IS V8.01,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
V8.0 USERS CAN OBTAIN THE UPGRADE TO V8.01 AT
<http://download.cas.org/express/v8.0-Discover/>

NEWS DCOST SINCE APPROXIMATELY 20:00 COLUMBUS TIME DECEMBER 29,
SOME ONLINE COST DISPLAYS HAVE BEEN SHOWING COSTS IN
2006 PRICES FOR STN COLUMBUS FILES. THIS HAS BEEN
CORRECTED. PLEASE BE ASSURED THAT YOU WILL BE BILLED
ACCORDING TO 2005 PRICES UNTIL JAN 1. PLEASE CONTACT
YOUR LOCAL HELP DESK IF YOU HAVE ANY QUESTIONS. WE
APOLOGIZE FOR THE ERROR.

NEWS HOURS STN Operating Hours Plus Help Desk Availability
NEWS INTER General Internet Information
NEWS LOGIN Welcome Banner and News Items
NEWS PHONE Direct Dial and Telecommunication Network Access to STN
NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

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result in loss of user privileges and other penalties.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 16:03:45 ON 03 JAN 2006

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CAPLUS' ENTERED AT 16:04:01 ON 03 JAN 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE COVERS 1907 - 3 Jan 2006 VOL 144 ISS 2

FILE LAST UPDATED: 2 Jan 2006 (20060102/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s us 20030086933/pn

L1 1 US 20030086933/PN
(US2003086933/PN)

=> s rn

20124 RN
634 RNS
L2 20735 RN
(RN OR RNS)

=> s CB () 1954

12173 CB
3804 CBS
15668 CB
(CB OR CBS)
8226 1954
L3 93 CB (W) 1954

=> s l3 and l2

L4 0 L3 AND L2

=> file reg

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

8.72

8.93

FILE 'REGISTRY' ENTERED AT 16:05:24 ON 03 JAN 2006

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Property values tagged with IC are from the ZIC/VINITI data file

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STRUCTURE FILE UPDATES: 2 JAN 2006 HIGHEST RN 870976-29-7
DICTIONARY FILE UPDATES: 2 JAN 2006 HIGHEST RN 870976-29-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> s .12

2889 RN
15 RNS
L5 2902 RN
(RN OR RNS)

=> file caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|---------------------|------------------|
| FULL ESTIMATED COST | 5.20 | 14.13 |

FILE 'CAPLUS' ENTERED AT 16:06:06 ON 03 JAN 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

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26, 1996), unless otherwise indicated in the original publications.
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FILE COVERS 1907 - 3 Jan 2006 VOL 144 ISS 2
FILE LAST UPDATED: 2 Jan 2006 (20060102/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> d his

(FILE 'HOME' ENTERED AT 16:03:45 ON 03 JAN 2006)

FILE 'CAPLUS' ENTERED AT 16:04:01 ON 03 JAN 2006

L1 1 S US 20030086933/PN
L2 20735 S RN
L3 93 S CB () 1954
L4 0 S L3 AND L2

FILE 'REGISTRY' ENTERED AT 16:05:24 ON 03 JAN 2006

L5 2902 S L2

FILE 'CAPLUS' ENTERED AT 16:06:06 ON 03 JAN 2006

=> sel rn ll

E1 THROUGH E45 ASSIGNED

=> file reg

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 0.54 | 14.67 |

FILE 'REGISTRY' ENTERED AT 16:06:28 ON 03 JAN 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 2 JAN 2006 HIGHEST RN 870976-29-7

DICTIONARY FILE UPDATES: 2 JAN 2006 HIGHEST RN 870976-29-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when conducting SmartSELECT searches.

*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> s e1-e45

1 19132-12-8/BI

(19132-12-8/RN)
1 21919-05-1/BI
(21919-05-1/RN)
1 100-39-0/BI
(100-39-0/RN)
1 106-94-5/BI
(106-94-5/RN)
1 106047-77-2/BI
(106047-77-2/RN)
1 107-08-4/BI
(107-08-4/RN)
1 109942-74-7/BI
(109942-74-7/RN)
1 1120-71-4/BI
(1120-71-4/RN)
1 114554-11-9/BI
(114554-11-9/RN)
1 115503-79-2/BI
(115503-79-2/RN)
1 119643-82-2/BI
(119643-82-2/RN)
1 126298-92-8/BI
(126298-92-8/RN)
1 141-76-4/BI
(141-76-4/RN)
1 144-48-9/BI
(144-48-9/RN)
1 17376-04-4/BI
(17376-04-4/RN)
1 17750-23-1/BI
(17750-23-1/RN)
1 17750-24-2/BI
(17750-24-2/RN)
1 218443-88-0/BI
(218443-88-0/RN)
1 218443-90-4/BI
(218443-90-4/RN)
1 218443-91-5/BI
(218443-91-5/RN)
1 218443-92-6/BI
(218443-92-6/RN)
1 218443-93-7/BI
(218443-93-7/RN)
1 4229-56-5/BI
(4229-56-5/RN)
1 51652-08-5/BI
(51652-08-5/RN)
1 52047-79-7/BI
(52047-79-7/RN)
1 53-57-6/BI
(53-57-6/RN)
1 5463-59-2/BI
(5463-59-2/RN)
1 58-68-4/BI
(58-68-4/RN)
1 58880-44-7/BI
(58880-44-7/RN)
1 624-76-0/BI
(624-76-0/RN)
1 627-18-9/BI
(627-18-9/RN)
1 6456-44-6/BI
(6456-44-6/RN)
1 64881-21-6/BI

(64881-21-6/RN)
 1 667919-86-0/BI
 (667919-86-0/RN)
 1 7145-37-1/BI
 (7145-37-1/RN)
 1 72306-81-1/BI
 (72306-81-1/RN)
 1 75-03-6/BI
 (75-03-6/RN)
 1 75-26-3/BI
 (75-26-3/RN)
 1 75-30-9/BI
 (75-30-9/RN)
 1 89080-16-0/BI
 (89080-16-0/RN)
 1 9037-41-6/BI
 (9037-41-6/RN)
 1 952-92-1/BI
 (952-92-1/RN)
 1 97009-81-9/BI
 (97009-81-9/RN)
 1 98-92-0/BI
 (98-92-0/RN)
 1 99362-74-0/BI
 (99362-74-0/RN)
 L6 45 (19132-12-8/BI OR 21919-05-1/BI OR 100-39-0/BI OR 106-94-5/BI
 OR 106047-77-2/BI OR 107-08-4/BI OR 109942-74-7/BI OR 1120-71-4/
 BI OR 114554-11-9/BI OR 115503-79-2/BI OR 119643-82-2/BI OR
 126298-92-8/BI OR 141-76-4/BI OR 144-48-9/BI OR 17376-04-4/BI
 OR 17750-23-1/BI OR 17750-24-2/BI OR 218443-88-0/BI OR 218443-90
 -4/BI OR 218443-91-5/BI OR 218443-92-6/BI OR 218443-93-7/BI OR
 4229-56-5/BI OR 51652-08-5/BI OR 52047-79-7/BI OR 53-57-6/BI OR
 5463-59-2/BI OR 58-68-4/BI OR 58880-44-7/BI OR 624-76-0/BI OR
 627-18-9/BI OR 6456-44-6/BI OR 64881-21-6/BI OR 667919-86-0/BI
 OR 7145-37-1/BI OR 72306-81-1/BI OR 75-03-6/BI OR 75-26-3/BI OR
 75-30-9/BI OR 89080-16-0/BI OR 9037-41-6/BI OR 952-92-1/BI OR
 97009-81-9/BI OR 98-92-0/BI OR 99362-74-0/BI)

=> d 1-45

L6 ANSWER 1 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 667919-86-0 REGISTRY
 ED Entered STN: 26 Mar 2004
 CN Dehydrogenase, reduced nicotinamide riboside (quinone) (9CI) (CA INDEX
 NAME)

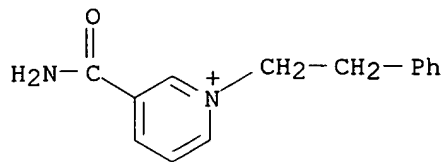
OTHER NAMES:

CN Dihydronicotinamide riboside quinone oxidoreductase 2
 CN Dihydronicotinamide riboside quinone reductase 2
 CN Dihydronicotinamide riboside:quinone oxidoreductase
 CN NQO2 oxidoreductase
 CN NRH:quinone oxidoreductase
 CN Reduced nicotinamide riboside (quinone) dehydrogenase
 MF Unspecified
 CI MAN
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
 35 REFERENCES IN FILE CA (1907 TO DATE)
 35 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 2 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 218443-93-7 REGISTRY
 ED Entered STN: 29 Jan 1999

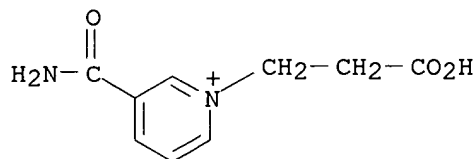
CN Pyridinium, 3-(aminocarbonyl)-1-(2-phenylethyl)-, iodide (9CI) (CA INDEX NAME)
 MF C14 H15 N2 O . I
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 CRN (761385-40-4)



● I⁻

2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

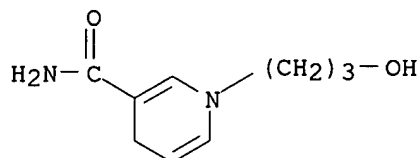
L6 ANSWER 3 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **218443-92-6** REGISTRY
 ED Entered STN: 29 Jan 1999
 CN Pyridinium, 3-(aminocarbonyl)-1-(2-carboxyethyl)-, iodide (9CI) (CA INDEX NAME)
 MF C9 H11 N2 O3 . I
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
 CRN (717820-87-6)



● I⁻

2 REFERENCES IN FILE CA (1907 TO DATE)
 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

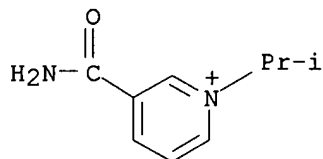
L6 ANSWER 4 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **218443-91-5** REGISTRY
 ED Entered STN: 29 Jan 1999
 CN 3-Pyridinecarboxamide, 1,4-dihydro-1-(3-hydroxypropyl)- (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C9 H14 N2 O2
 SR CA
 LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

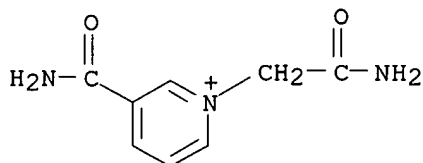
L6 ANSWER 5 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN **218443-90-4** REGISTRY
ED Entered STN: 29 Jan 1999
CN Pyridinium, 3-(aminocarbonyl)-1-(1-methylethyl)-, bromide (9CI) (CA INDEX NAME)
MF C9 H13 N2 O . Br
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
CRN (745779-44-6)



● Br⁻

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

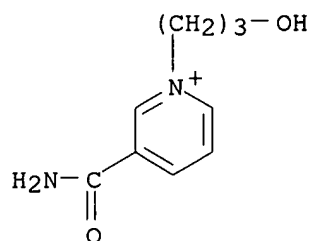
L6 ANSWER 6 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN **218443-88-0** REGISTRY
ED Entered STN: 29 Jan 1999
CN Pyridinium, 3-(aminocarbonyl)-1-(2-amino-2-oxoethyl)-, iodide (9CI) (CA INDEX NAME)
MF C8 H10 N3 O2 . I
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
CRN (66822-26-2)



● I⁻

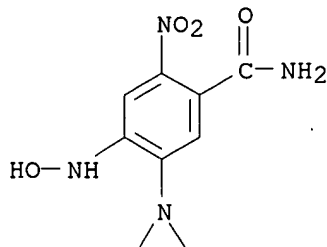
3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 7 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN 126298-92-8 REGISTRY
ED Entered STN: 06 Apr 1990
CN Pyridinium, 3-(aminocarbonyl)-1-(3-hydroxypropyl)-, bromide (9CI) (CA INDEX NAME)
MF C9 H13 N2 O2 . Br
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
CRN (83643-85-0)



4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 8 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN 119643-82-2 REGISTRY
ED Entered STN: 17 Mar 1989
CN Benzamide, 5-(1-aziridinyl)-4-(hydroxyamino)-2-nitro- (9CI) (CA INDEX NAME)
FS 3D CONCORD
MF C9 H10 N4 O4
SR CA
LC STN Files: CA, CANCERLIT, CAPLUS, MEDLINE, TOXCENTER, USPATFULL

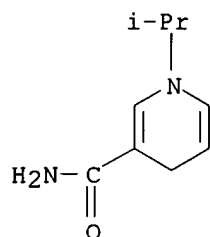


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

12 REFERENCES IN FILE CA (1907 TO DATE)
12 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 9 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN 115503-79-2 REGISTRY
ED Entered STN: 30 Jul 1988

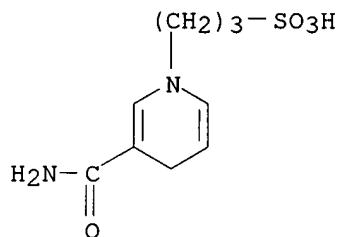
CN 3-Pyridinecarboxamide, 1,4-dihydro-1-(1-methylethyl)- (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C9 H14 N2 O
 SR CA
 LC STN Files: BEILSTEIN*, CA, CAPLUS, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)
 5 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 10 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **114554-11-9** REGISTRY
 ED Entered STN: 21 May 1988
 CN 1(4H)-Pyridinepropanesulfonic acid, 3-(aminocarbonyl)- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 1(4H)-Pyridinepropanesulfonic acid, 3-carbamoyl- (6CI)
 FS 3D CONCORD
 MF C9 H14 N2 O4 S
 SR CAOLD
 LC STN Files: CA, CAOLD, CAPLUS, TOXCENTER, USPATFULL

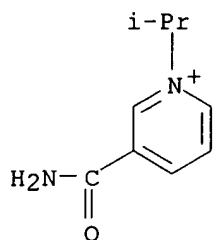


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 11 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **109942-74-7** REGISTRY
 ED Entered STN: 22 Aug 1987
 CN Pyridinium, 3-(aminocarbonyl)-1-(1-methylethyl)-, iodide (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 3-Carbamoyl-1-isopropylpyridinium iodide (6CI)
 MF C9 H13 N2 O . I
 SR CAOLD

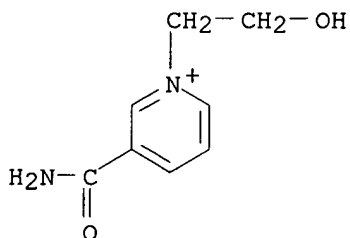
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
CRN (745779-44-6)



● I⁻

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

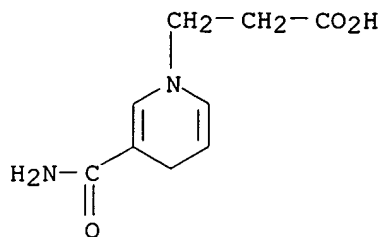
L6 ANSWER 12 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN 106047-77-2 REGISTRY
ED Entered STN: 10 Jan 1987
CN Pyridinium, 3-(aminocarbonyl)-1-(2-hydroxyethyl)-, iodide (9CI) (CA INDEX NAME)
MF C8 H11 N2 O2 . I
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
CRN (66822-21-7)



● I⁻

4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

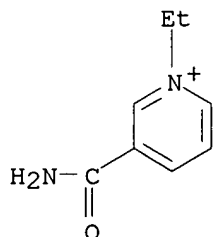
L6 ANSWER 13 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN 99362-74-0 REGISTRY
ED Entered STN: 07 Dec 1985
CN 1(4H)-Pyridinepropanoic acid, 3-(aminocarbonyl)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1(4H)-Pyridinepropionic acid, 3-carbamoyl- (6CI)
FS 3D CONCORD
MF C9 H12 N2 O3
SR CAOLD
LC STN Files: CA, CAOLD, CAPLUS, TOXCENTER, USPATFULL



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

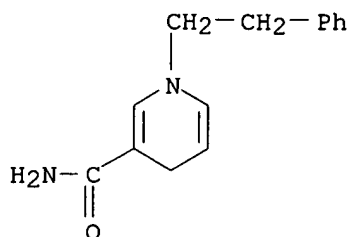
L6 ANSWER 14 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 97009-81-9 REGISTRY
 ED Entered STN: 01 Jul 1985
 CN Pyridinium, 3-(aminocarbonyl)-1-ethyl-, iodide (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 3-Carbamoyl-1-ethylpyridinium iodide (6CI)
 CN Pyridinium, 3-carbamyl-1-ethyl-, iodide (4CI)
 MF C8 H11 N2 O . I
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)
 CRN (71413-64-4)



● I⁻

12 REFERENCES IN FILE CA (1907 TO DATE)
 12 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

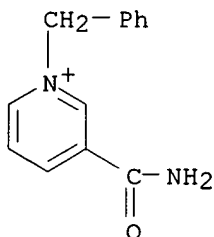
L6 ANSWER 15 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 89080-16-0 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN 3-Pyridinecarboxamide, 1,4-dihydro-1-(2-phenylethyl)- (9CI) (CA INDEX NAME)
 FS 3D CONCORD
 MF C14 H16 N2 O
 LC STN Files: BEILSTEIN*, CA, CAPLUS, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 16 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN **72306-81-1** REGISTRY
ED Entered STN: 16 Nov 1984
CN Pyridinium, 3-(aminocarbonyl)-1-(phenylmethyl)-, iodide (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1-Benzyl-3-carbamoylpyridinium iodide (6CI, 7CI)
MF C13 H13 N2 O . I
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)
CRN (16183-83-8)



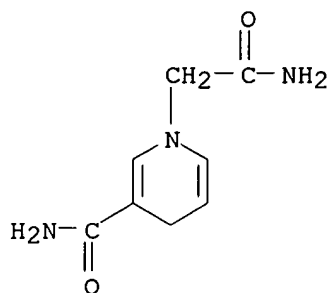
● I⁻

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

5 REFERENCES IN FILE CA (1907 TO DATE)
5 REFERENCES IN FILE CAPLUS (1907 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 17 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN **64881-21-6** REGISTRY
ED Entered STN: 16 Nov 1984
CN 1(4H)-Pyridineacetamide, 3-(aminocarbonyl)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1-Carbamoylmethyl-1,4-dihydronicotinamide
CN Caricotamide
CN EP 0152R
FS 3D CONCORD
MF C8 H11 N3 O2
LC STN Files: BEILSTEIN*, CA, CAPLUS, TOXCENTER, USPATFULL

(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9 REFERENCES IN FILE CA (1907 TO DATE)

9 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 18 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN

RN **58880-44-7** REGISTRY

ED Entered STN: 16 Nov 1984

CN 3-Pyridinecarboxamide, 1-ethyl-1,4-dihydro- (9CI) (CA INDEX NAME)

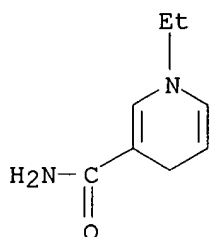
OTHER NAMES:

CN N-Ethyl-1,4-dihydronicotinamide

FS 3D CONCORD

MF C8 H12 N2 O

LC STN Files: BEILSTEIN*, CA, CAPLUS, CASREACT, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

8 REFERENCES IN FILE CA (1907 TO DATE)

8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 19 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN

RN **52047-79-7** REGISTRY

ED Entered STN: 16 Nov 1984

CN Pyridinium, 3-(aminocarbonyl)-1-propyl-, bromide (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Pyridinium, 3-carbamoyl-1-propyl-, bromide (6CI)

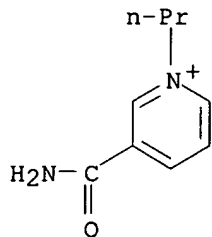
OTHER NAMES:

CN 3-Carbamoyl-1-propylpyridinium bromide

MF C9 H13 N2 O . Br

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CHEMCATS, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

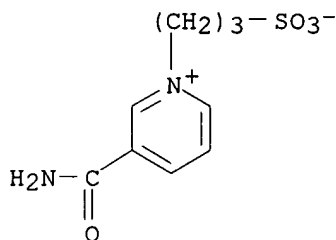
CRN (13309-33-6)



● Br⁻

15 REFERENCES IN FILE CA (1907 TO DATE)
 15 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 20 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **51652-08-5** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Pyridinium, 3-(aminocarbonyl)-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 3-Carbamoyl-1-(3-sulfopropyl)pyridinium hydroxide, inner salt (6CI)
 CN Pyridinium, 3-(aminocarbonyl)-1-(3-sulfopropyl)-, hydroxide, inner salt
 FS 3D CONCORD
 MF C9 H12 N2 O4 S
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMLIST, MSDS-OHS, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: EINECS**
 (**Enter CHEMLIST File for up-to-date regulatory information)

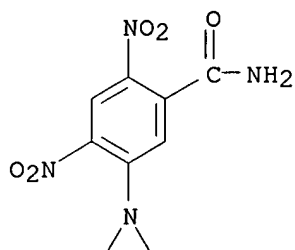


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11 REFERENCES IN FILE CA (1907 TO DATE)
 11 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 21 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **21919-05-1** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Benzamide, 5-(1-aziridinyl)-2,4-dinitro- (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 2,4-Dinitro-5-ethyleneiminobenzamide
 CN 2,4-Dinitroethyleneiminobenzamide
 CN 5-(1-Aziridinyl)-2,4-dinitrobenzamide
 CN 5-Aziridino-2,4-dinitrobenzamide

CN 5-Aziridinyl-2,4-dinitrobenzamide
 CN CB 1954
 CN NSC 115829
 CN Tretazicar
 MF C9 H8 N4 O5
 LC STN Files: ADISNEWS, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, CHEMCATS, CIN, DDFU, DRUGU,
 EMBASE, IMSDRUGNEWS, IMSRESEARCH, MEDLINE, PROMT, PROUSDDR, RTECS*,
 TOXCENTER, USPAT2, USPATFULL
 (*File contains numerically searchable property data)

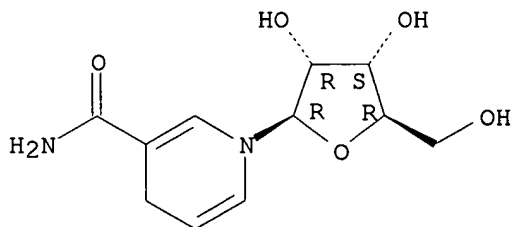


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

168 REFERENCES IN FILE CA (1907 TO DATE)
 4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 169 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 22 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **19132-12-8** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN 3-Pyridinecarboxamide, 1,4-dihydro-1-β-D-ribofuranosyl- (9CI) (CA
 INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Nicotinamide, 1,4-dihydro-1-β-D-ribofuranosyl- (6CI, 7CI, 8CI)
 OTHER NAMES:
 CN β-Reduced nicotinamide ribonucleoside
 CN Reduced nicotinamide riboside
 FS STEREOSEARCH
 MF C11 H16 N2 O5
 CI COM
 LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)

Absolute stereochemistry.

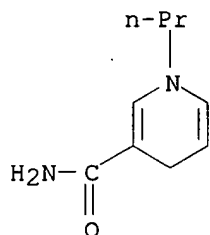


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

16 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 16 REFERENCES IN FILE CAPLUS (1907 TO DATE)

4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

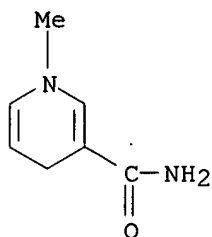
L6 ANSWER 23 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 17750-24-2 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN 3-Pyridinecarboxamide, 1,4-dihydro-1-propyl- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Nicotinamide, 1,4-dihydro-1-propyl- (6CI, 7CI, 8CI)
 OTHER NAMES:
 CN 1,4-Dihydro-N1-propylnicotinamide
 CN 1-n-Propyl-1,4-dihydronicotinamide
 CN 1-Propyl-1,4-dihydronicotinamide
 CN N-Propyldihydronicotinamide
 CN N1-(n-Propyl)-1,4-dihydronicotinamide
 FS 3D CONCORD
 MF C9 H14 N2 O
 LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, HODOC*,
 TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

95 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 95 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 15 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 24 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 17750-23-1 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN 3-Pyridinecarboxamide, 1,4-dihydro-1-methyl- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Nicotinamide, 1,4-dihydro-1-methyl- (6CI, 8CI)
 OTHER NAMES:
 CN 1,4-Dihydro-1-methylnicotinamide
 CN 1,4-Dihydro-N-methylnicotinamide
 CN 1-Methyl-1,4-dihydronicotinamide
 CN 3-Carbamoyl-1,4-dihydro-1-methylpyridine
 CN N-Methyl-1,4-dihydronicotinamide
 FS 3D CONCORD
 MF C7 H10 N2 O
 CI COM
 LC STN Files: BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT,
 CHEMCATS, IFICDB, IFIPAT, IFIUDB, MEDLINE, TOXCENTER, USPAT2, USPATFULL
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

107 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 107 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 3 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 25 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **17376-04-4** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Benzene, (2-iodoethyl)- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN (2-Iodoethyl)benzene
 CN β -Phenethyl iodide
 CN β -Phenylethyl iodide
 CN 1-Iodo-2-phenylethane
 CN 2-Phenylethyl iodide
 CN Phenethyl iodide
 FS 3D CONCORD
 MF C8 H9 I
 CI COM
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,
 CHEMINFORMRX, CHEMLIST, CSCHEM, DETHERM*, GMELIN*, HODOC*, SPECINFO,
 TOXCENTER, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: NDSL**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

ICH₂-CH₂-Ph

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

268 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 268 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 15 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 26 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **9037-41-6** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Reductase, nitro- (9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 2,4,6-Trinitrotoluene nitroreductase
 CN 3-Nitrophenol reductase
 CN 4-Nitrobiphenyl reductase
 CN Aromatic nitroreductase
 CN Dinitropyrene nitroreductase
 CN Nitrobenzene nitroreductase
 CN Nitrobenzene reductase

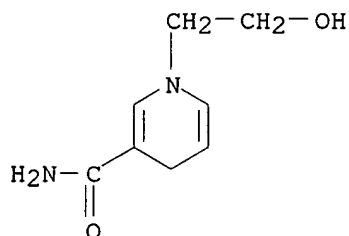
CN Nitrobenzoic acid reductase
 CN Nitrophenol reductase
 CN Nitroreductase
 CN Nitroreductase (NADH)
 CN PETN reductase
 CN TNT nitroreductase
 MF Unspecified
 CI MAN
 LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
 CAPLUS, CEN, CIN, EMBASE, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

663 REFERENCES IN FILE CA (1907 TO DATE)
 11 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 666 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L6 ANSWER 27 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **7145-37-1** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN 3-Pyridinecarboxamide, 1,4-dihydro-1-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Nicotinamide, 1,4-dihydro-1-(2-hydroxyethyl)- (7CI, 8CI)
 OTHER NAMES:
 CN NSC 74259
 FS 3D CONCORD
 MF C8 H12 N2 O2
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)

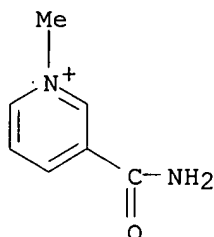


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1907 TO DATE)
 6 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 28 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **6456-44-6** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Pyridinium, 3-(aminocarbonyl)-1-methyl-, iodide (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 3-Carbamoyl-1-methylpyridinium iodide (6CI, 7CI)
 CN Pyridinium, 3-carbamoyl-1-methyl-, iodide (8CI)
 CN Pyridinium, 3-carbamyl-1-methyl-, iodide (4CI)
 OTHER NAMES:
 CN 1-Methylnicotinamide iodide
 CN Nicotinamide methiodide
 MF C7 H9 N2 O . I
 SR CAS EARLY REGISTRATIONS

LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMLIST,
 CSCHEM, GMELIN*, RTECS*, TOXCENTER, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: EINECS**
 (**Enter CHEMLIST File for up-to-date regulatory information)
 CRN (3106-60-3)

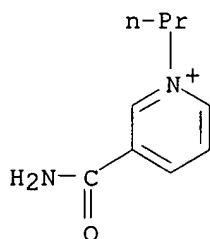


● I⁻

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

104 REFERENCES IN FILE CA (1907 TO DATE)
 104 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 19 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 29 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **5463-59-2** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Pyridinium, 3-(aminocarbonyl)-1-propyl-, iodide (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 3-Carbamoyl-1-propylpyridinium iodide (6CI, 7CI)
 CN Pyridinium, 3-carbamoyl-1-propyl-, iodide (8CI)
 MF C9 H13 N2 O . I
 LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS, HODOC*, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)
 CRN (13309-33-6)

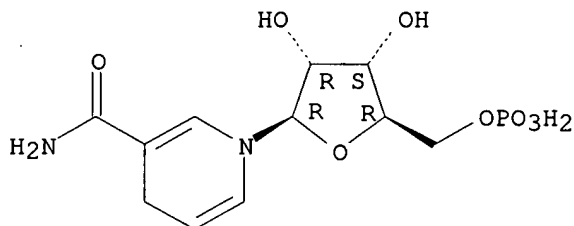


● I⁻

18 REFERENCES IN FILE CA (1907 TO DATE)
 18 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 30 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 4229-56-5 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN 3-Pyridinecarboxamide, 1,4-dihydro-1-(5-O-phosphono-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Nicotinamide, 1,4-dihydro-1-β-D-ribofuranosyl-, 5'-(dihydrogen phosphate) (8CI)
 CN Nicotinamide, 1,4-dihydro-1-β-D-ribofuranosyl-, 5'-phosphate (7CI)
 OTHER NAMES:
 CN β-NMNH
 CN 1,4-Dihydronicotinamide mononucleotide
 CN 1,4-Dihydronicotinamide ribonucleotide
 CN Nicotinamide ribonucleotide, reduced
 CN NMNH
 CN NMNH2
 CN Reduced nicotinamide mononucleotide
 CN Reduced nicotinamide ribonucleotide
 FS STEREOSEARCH
 MF C11 H17 N2 O8 P
 CI COM
 LC STN Files: AGRICOLA, BEILSTEIN*, CA, CAOLD, CAPLUS, CEN, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)

Absolute stereochemistry.

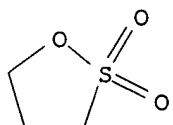


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

77 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 77 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 31 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 1120-71-4 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN 1,2-Oxathiolane, 2,2-dioxide (8CI, 9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN 1-Propanesulfonic acid, 3-hydroxy-, γ-sultone (6CI)
 OTHER NAMES:
 CN γ-Propane sultone
 CN 1,3-Propane sultone
 CN 1,3-Trimethylene sultone
 CN 3-Hydroxy-1-propanesulfonic acid γ-sultone
 CN 3-Hydroxy-1-propanesulfonic acid sultone
 CN NSC 42386
 CN Propane sultone
 CN Propyl sultone
 FS 3D CONCORD
 MF C3 H6 O3 S

CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS,
 CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, EMBASE,
 ENCOMPAT, ENCOMPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB,
 MEDLINE, MSDS-OHS, NIOSHTIC, PROMT, PS, RTECS*, SPECINFO, TOXCENTER,
 ULIDAT, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1720 REFERENCES IN FILE CA (1907 TO DATE)
 374 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1723 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 31 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 32 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 952-92-1 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN 3-Pyridinecarboxamide, 1,4-dihydro-1-(phenylmethyl)- (9CI) (CA INDEX NAME)

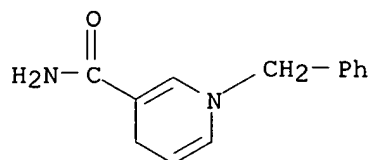
OTHER CA INDEX NAMES:

CN Nicotinamide, 1-benzyl-1,4-dihydro- (6CI, 7CI, 8CI)

OTHER NAMES:

CN 1,4-Dihydro-1-(phenylmethyl)-3-pyridinecarboxamide
 CN 1,4-Dihydro-N-benzylnicotinamide
 CN 1-Benzyl-1,4-dihydronicotinamide
 CN 1-Benzyl-3-carbamido-1,4-dihydropyridine
 CN 1-Benzyl-3-carbamoyl-1,4-dihydropyridine
 CN BNAH
 CN N-Benzyl-1,4-dihydronicotinamide
 CN N-Benzyl-3-carbamoyl-1,4-dihydropyridine
 CN N-Benzylidihydronicotinamide
 CN NSC 26899
 FS 3D CONCORD
 DR 174307-50-7, 84062-23-7
 MF C13 H14 N2 O
 CI COM

LC STN Files: AGRICOLA, BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT,
 CHEMCATS, CHEMINFORMRX, CSCHEM, GMELIN*, IFICDB, IFIPAT, IFIUDB,
 MEDLINE, PIRA, PROMT, TOXCENTER, USPATFULL
 (*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

582 REFERENCES IN FILE CA (1907 TO DATE)
 10 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 582 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 31 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 33 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **627-18-9** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN 1-Propanol, 3-bromo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 1-Bromo-3-hydroxypropane
 CN 1-Bromo-3-propanol
 CN 3-Bromo-1-propanol
 CN 3-Bromopropyl alcohol
 CN 3-Hydroxypropyl bromide
 CN Trimethylene bromohydrin
 FS 3D CONCORD
 MF C3 H7 Br O
 CI COM
 LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,
 CHEMINFORMRX, CHEMLIST, CSCHEM, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT,
 IFIUDB, NIOSHTIC, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2,
 USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: EINECS**, NDSL**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

Br-CH₂-CH₂-CH₂-OH

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1358 REFERENCES IN FILE CA (1907 TO DATE)
 17 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1358 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 8 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 34 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **624-76-0** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Ethanol, 2-iodo- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 2-Iodoethanol
 CN Ethylene iodohydrin
 CN Iodoethanol
 CN NSC 85227
 FS 3D CONCORD
 MF C2 H5 I O
 CI COM
 LC STN Files: BEILSTEIN*, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS,

CHEMINFORMRX, CHEMLIST, CSCHEM, DETHERM*, HODOC*, IFICDB, IFIPAT, IFIUDB, NIOSHTIC, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

I-CH₂-CH₂-OH

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

457 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
457 REFERENCES IN FILE CAPLUS (1907 TO DATE)
7 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 35 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN

RN **144-48-9** REGISTRY

ED Entered STN: 16 Nov 1984

CN Acetamide, 2-iodo- (8CI, 9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Acetamide, iodo- (6CI)

OTHER NAMES:

CN α-Iodoacetamide

CN 2-Iodoacetamide

CN Iodoacetamide

CN Monoiodoacetamide

CN NSC 9581

CN Surauto

FS 3D CONCORD

MF C2 H4 I N O

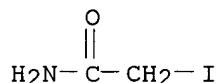
CI COM

LC STN Files: AGRICOLA, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, DDFU, DRUGU, EMBASE, HODOC*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, RTECS*, SCISEARCH, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL, VETU

(*File contains numerically searchable property data)

Other Sources: DSL**, EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1630 REFERENCES IN FILE CA (1907 TO DATE)
45 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
1631 REFERENCES IN FILE CAPLUS (1907 TO DATE)
80 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 36 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN

RN **141-76-4** REGISTRY

ED Entered STN: 16 Nov 1984

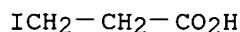
CN Propanoic acid, 3-iodo- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Propionic acid, 3-iodo- (6CI, 7CI, 8CI)

OTHER NAMES:

CN β -Iodopropionic acid
CN 3-Iodopropanoic acid
CN 3-Iodopropionic acid
CN NSC 2124
FS 3D CONCORD
MF C3 H5 I O2
CI COM
LC STN Files: ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CSCHEM, GMELIN*, HODOC*, MSDS-OHS, NIOSHTIC, RTECS*, SPECINFO, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**, NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

180 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
180 REFERENCES IN FILE CAPLUS (1907 TO DATE)
17 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 37 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN

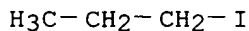
RN **107-08-4** REGISTRY

ED Entered STN: 16 Nov 1984

CN Propane, 1-iodo- (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN 1-Iodopropane
CN n-Propyl iodide
CN Propane iodide
CN Propyl iodide
FS 3D CONCORD
MF C3 H7 I
CI COM
LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CSCHEM, DETHERM*, DIPPR*, EMBASE, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, TULSA, USPAT2, USPATFULL, VTB
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3145 REFERENCES IN FILE CA (1907 TO DATE)
13 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3153 REFERENCES IN FILE CAPLUS (1907 TO DATE)
5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 38 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN

RN **106-94-5** REGISTRY

ED Entered STN: 16 Nov 1984

CN Propane, 1-bromo- (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN 1-Bromopropane
 CN 1-Propyl bromide
 CN Ascusol MC
 CN Leksol
 CN n-Propyl bromide
 CN Propyl bromide
 FS 3D CONCORD
 MF C3 H7 Br
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
 CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*,
 EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIADB, IPA, MEDLINE,
 MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA, PROMT, PS, RTECS*,
 SCISEARCH, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

Br-CH₂-CH₂-CH₃

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

4152 REFERENCES IN FILE CA (1907 TO DATE)
 46 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 4158 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 5 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 39 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 100-39-0 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Benzene, (bromomethyl)- (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Toluene, α-bromo- (8CI)
 OTHER NAMES:
 CN (Bromomethyl)benzene
 CN (Bromophenyl)methane
 CN α-Bromotoluene
 CN ω-Bromotoluene
 CN Benzyl bromide
 CN NSC 8041
 CN Phenylmethyl bromide
 FS 3D CONCORD
 MF C7 H7 Br
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX,
 CHEMLIST, CIN, CSCHEM, DETHERM*, EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB,
 IFIPAT, IFIADB, MEDLINE, MRCK*, NIOSHTIC, PDLCOM*, PIRA, PROMT, PS,
 RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, ULIDAT, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

Ph-CH₂-Br

****PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT****

13497 REFERENCES IN FILE CA (1907 TO DATE)
101 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
13535 REFERENCES IN FILE CAPLUS (1907 TO DATE)
6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 40 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN

RN 98-92-0 REGISTRY

ED Entered STN: 16 Nov 1984

CN 3-Pyridinecarboxamide (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Nicotinamide (8CI)

OTHER NAMES:

CN β -Pyridinecarboxamide

CN 3-(Aminocarbonyl)pyridine

CN 3-Amidopyridine

CN 3-Carbamoylpyridine

CN 3-Pyridinecarboxylic acid amide

CN Aminicotin

CN Benicot

CN Delonin Amide

CN Dipegyl

CN m-(Aminocarbonyl)pyridine

CN NAM

CN Niacinamide

CN Niavit PP

CN Nicamina

CN Nicamindon

CN Nicasir

CN Nicobion

CN Nicofort

CN Nicosan 2

CN Nicosylamide

CN Nicotilamide

CN Nicotine acid amide

CN Nicotinic acid amide

CN Nicotinic amide

CN Nicotylamide

CN Nicovit

CN Nicovitina

CN Nictoamide

CN Niocinamide

CN Niozymin

CN NSC 13128

CN NSC 27452

CN Papulex

CN Pelmin

CN Pelmine

CN Pelonin amide

CN Vi-Nicotyl

CN Vitamin B

CN Vitamin B3

FS 3D CONCORD

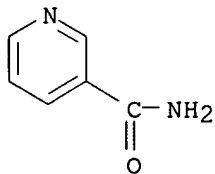
DR 123574-63-0, 37321-14-5, 78731-47-2

MF C6 H6 N2 O

CI COM

LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUIRE, BEILSTEIN*,
BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS,
CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM,
CSNB, DDFU, DETHERM*, DIOGENES, DRUGU, EMBASE, GMELIN*, HODOC*, HSDB*,
IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT,
NIOSTIC, PDLCOM*, PHAR, PIRA, PROMT, PROUSDDR, PS, RTECS*, SPECINFO,
TOXCENTER, USAN, USPAT2, USPATFULL, VTB

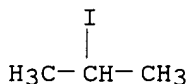
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Other Sources: DSL**, EINECS**, TSCA**, WHO
(**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

9025 REFERENCES IN FILE CA (1907 TO DATE)
402 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
9036 REFERENCES IN FILE CAPLUS (1907 TO DATE)
9 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 41 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN **75-30-9** REGISTRY
ED Entered STN: 16 Nov 1984
CN Propane, 2-iodo- (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 1-Methylethyl iodide
CN 2-Iodopropane
CN 2-Propyl iodide
CN Isopropyl iodide
CN sec-Propyl iodide
FS 3D CONCORD
MF C3 H7 I
CI COM
LC STN Files: ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS, CA, CAOLD, CAPLUS, CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CSCHEM, DETHERM*, DIPPR*, GMELIN*, HODOC*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, PS, RTECS*, SPECINFO, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL
(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)

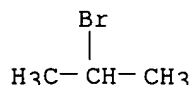


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2866 REFERENCES IN FILE CA (1907 TO DATE)
7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
2877 REFERENCES IN FILE CAPLUS (1907 TO DATE)
4 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 42 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
RN **75-26-3** REGISTRY
ED Entered STN: 16 Nov 1984
CN Propane, 2-bromo- (8CI, 9CI) (CA INDEX NAME)
OTHER NAMES:
CN 2-Bromopropane
CN Isopropyl bromide
CN sec-Propyl bromide

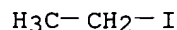
FS 3D CONCORD
 MF C3 H7 Br
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CHEMCATS,
 CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*,
 EMBASE, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE,
 MRCK*, MSDS-OHS, NIOSHTIC, PROMT, PS, RTECS*, SPECINFO, SYNTHLINE,
 TOXCENTER, ULIDAT, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3333 REFERENCES IN FILE CA (1907 TO DATE)
 15 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 3340 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 43 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 75-03-6 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Ethane, iodo- (8CI, 9CI) (CA INDEX NAME)
 OTHER NAMES:
 CN Ethyl iodide
 CN Hydriodic ether
 CN Iodoethane
 CN Monoiodoethane
 CN NSC 8825
 FS 3D CONCORD
 MF C2 H5 I
 CI COM
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
 CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*, EMBASE,
 ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, IFICDB,
 IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PIRA,
 PROMT, PS, RTECS*, SPECINFO, TOXCENTER, USPAT2, USPATFULL, VTB
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

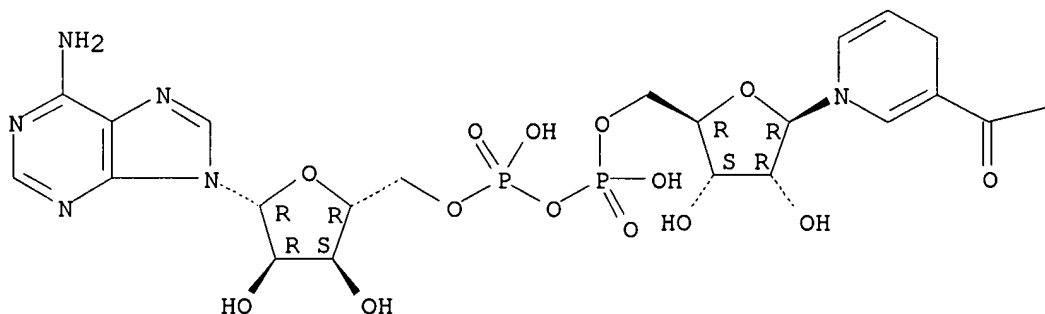
6769 REFERENCES IN FILE CA (1907 TO DATE)
 73 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 6781 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 6 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 44 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN 58-68-4 REGISTRY

ED Entered STN: 16 Nov 1984
 CN Adenosine 5'-(trihydrogen diphosphate), P'→5'-ester with
 1,4-dihydro-1-β-D-ribofuranosyl-3-pyridinecarboxamide (9CI) (CA
 INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Adenosine 5'-(trihydrogen pyrophosphate), 5'→5'-ester with
 1,4-dihydro-1-β-D-ribofuranosylnicotinamide (8CI)
 CN Adenosine pyrophosphate, 5'→5'-ester with 1,4-dihydro-1-β-D-
 ribofuranosylnicotinamide (7CI)
 OTHER NAMES:
 CN β-DPNH
 CN β-NADH
 CN 1,4-Dihydronicotinamide adenine dinucleotide
 CN Codehydrase I, reduced
 CN Codehydrogenase I, reduced
 CN Coenzyme I, reduced
 CN Cozymase I, reduced
 CN Dihydrocodehydrogenase I
 CN Dihydrocozymase
 CN Dihydronicotinamide adenine dinucleotide
 CN Dihydronicotinamide mononucleotide
 CN DPNH
 CN ENADA
 CN NADH
 CN NADH2
 CN Nicotinamide-adenine dinucleotide, reduced
 CN Reduced codehydrogenase I
 CN Reduced diphosphopyridine nucleotide
 CN Reduced nicotinamide adenine diphosphate
 CN Reduced nicotinamide-adenine dinucleotide
 FS STEREOSEARCH
 DR 443892-10-2
 MF C21 H29 N7 O14 P2
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST,
 CIN, CSCHEM, DDFU, DRUGU, EMBASE, GMELIN*, IFICDB, IFIPAT, IFIUDB,
 MRCK*, NIOSHTIC, PROMT, TOXCENTER, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.

PAGE 1-A



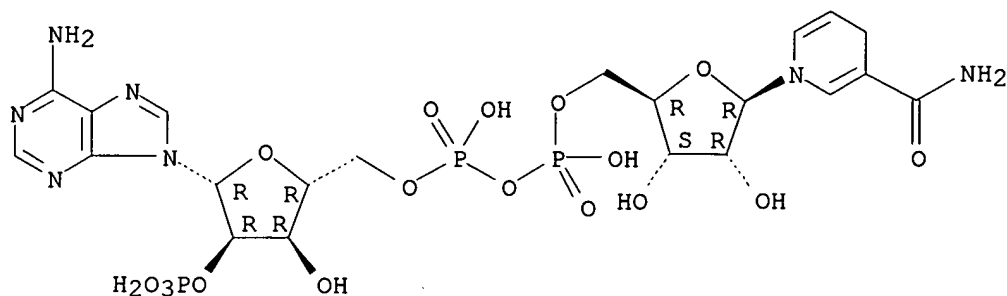
—NH₂

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

13555 REFERENCES IN FILE CA (1907 TO DATE)
 263 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 13563 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 45 OF 45 REGISTRY COPYRIGHT 2006 ACS on STN
 RN **53-57-6** REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Adenosine 5'-(trihydrogen diphosphate), 2'-(dihydrogen phosphate),
 P'→5'-ester with 1,4-dihydro-1-β-D-ribofuranosyl-3-
 pyridinecarboxamide (9CI) (CA INDEX NAME)
 OTHER CA INDEX NAMES:
 CN Adenosine, 2'-(dihydrogen phosphate) 5'-(trihydrogen pyrophosphate),
 5'→5'-ester with 1,4-dihydro-1-β-D-ribofuranosylnicotinamide
 (8CI)
 OTHER NAMES:
 CN β-NADPH
 CN β-Nicotinamide-adenine-dinucleotide-phosphoric acid
 CN β-TPNH
 CN 51: PN: WO2004076659 FIGURE: 7 claimed sequence
 CN Codehydrase II, reduced
 CN Codehydrogenase II, reduced
 CN Coenzyme II, reduced
 CN Cozymase II, reduced
 CN Dihydrocodehydrogenase II
 CN NADPH
 CN NADPH2
 CN Nicotinamide-adenine dinucleotide phosphate, reduced
 CN Reduced codehydrogenase II
 CN Reduced nicotinamide adenine dinucleotide phosphate
 CN Reduced triphosphopyridine nucleotide
 CN TPNH
 CN Triphosphopyridine nucleotide, reduced
 FS STEREOSEARCH
 DR 22046-90-8, 3545-01-5
 MF C21 H30 N7 O17 P3
 CI COM
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS, BIOSIS,
 BIOTECHNO, CA, CABA, CAOLD, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST,
 CIN, CSCHM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MRCK*,
 NIOSHTIC, PROMT, TOXCENTER, USPAT2, USPATFULL
 (*File contains numerically searchable property data)
 Other Sources: EINECS**, NDSL**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11178 REFERENCES IN FILE CA (1907 TO DATE)
 231 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 11189 REFERENCES IN FILE CAPLUS (1907 TO DATE)
 57 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> file caplus
 COST IN U.S. DOLLARS

| SINCE FILE ENTRY | TOTAL SESSION |
|------------------|---------------|
| 87.70 | 102.37 |

FULL ESTIMATED COST

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 FILE LAST UPDATED: 2 Jan 2006 (20060102/ED)

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=> d his

(FILE 'HOME' ENTERED AT 16:03:45 ON 03 JAN 2006)

FILE 'CAPLUS' ENTERED AT 16:04:01 ON 03 JAN 2006

L1 1 S US 20030086933/PN
 L2 20735 S RN
 L3 93 S CB () 1954
 L4 0 S L3 AND L2

FILE 'REGISTRY' ENTERED AT 16:05:24 ON 03 JAN 2006

L5 2902 S L2

FILE 'CAPLUS' ENTERED AT 16:06:06 ON 03 JAN 2006
SEL RN L1

L6 FILE 'REGISTRY' ENTERED AT 16:06:28 ON 03 JAN 2006
45 S E1-E45

FILE 'CAPLUS' ENTERED AT 16:09:35 ON 03 JAN 2006

=> s 16
L7 62737 L6

=> s 17 and 13
L8 87 L7 AND L3

=> s 17 (L) 13
L9 65 L7 (L) L3

=> s NQO2
L10 73 NQO2

=> s 110 and 19
L11 5 L10 AND L9

=> d ibib 1-5

L11 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:301733 CAPLUS
DOCUMENT NUMBER: 141:306746
TITLE: Quinone reductase-mediated nitro-reduction: clinical applications
AUTHOR(S): Knox, Richard J.; Chen, Shiuan
CORPORATE SOURCE: Enact Pharma PLC, Salisbury, SP4 0JQ, UK
SOURCE: Methods in Enzymology (2004), 382(Quinones and Quinone Enzymes, Part B), 194-221
CODEN: MENZAU; ISSN: 0076-6879
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 92 THERE ARE 92 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:749515 CAPLUS
DOCUMENT NUMBER: 140:121861
TITLE: CB 1954: From the Walker tumor to NQO2 and VDEPT
AUTHOR(S): Knox, Richard J.; Burke, Philip J.; Chen, Shiuan; Kerr, David J.
CORPORATE SOURCE: Enact Pharma PLC, Salisbury, UK
SOURCE: Current Pharmaceutical Design (2003), 9(26), 2091-2104
CODEN: CPDEFP; ISSN: 1381-6128
PUBLISHER: Bentham Science Publishers Ltd.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 97 THERE ARE 97 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:835107 CAPLUS
DOCUMENT NUMBER: 139:414
TITLE: Improved cancer treatment with enzyme technology
CORPORATE SOURCE: Enact Pharma, Enact Pharma plc, Salisbury, SP4 0JQ, UK
SOURCE: sp2 (2002), 1(8), 22, 24-25
CODEN: SPSUCF; ISSN: 1476-184X

PUBLISHER: Avakado Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

L11 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:597759 CAPLUS

DOCUMENT NUMBER: 133:275962

TITLE: Bioactivation of 5-(aziridin-1-yl)-2,4-dinitrobenzamide (CB 1954) by human NAD(P)H quinone oxidoreductase 2: a novel co-substrate-mediated antitumor prodrug therapy

AUTHOR(S): Knox, Richard J.; Jenkins, Terence C.; Hobbs, Stephen M.; Chen, Shiuan; Melton, Roger G.; Burke, Philip J.

CORPORATE SOURCE: Enact Pharma Plc, Salisbury, SP4 0JQ, UK
SOURCE: Cancer Research (2000), 60(15), 4179-4186
CODEN: CNREA8; ISSN: 0008-5472

PUBLISHER: American Association for Cancer Research

DOCUMENT TYPE: Journal

LANGUAGE: English

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:9725 CAPLUS

DOCUMENT NUMBER: 130:76160

TITLE: NAD(P)H:quinone reductase 2- and prodrug-based therapeutic systems

INVENTOR(S): Burke, Philip John; Knox, Richard John

PATENT ASSIGNEE(S): Enzacta R & D Limited, UK

SOURCE: PCT Int. Appl., 109 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| WO 9857662 | A2 | 19981223 | WO 1998-GB1731 | 19980615 |
| WO 9857662 | A3 | 19990812 | | |
| W: CA, GB, JP, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| CA 2292608 | AA | 19981223 | CA 1998-2292608 | 19980615 |
| GB 2341605 | A1 | 20000322 | GB 1999-28237 | 19980615 |
| GB 2341605 | B2 | 20020220 | | |
| EP 988059 | A2 | 20000329 | EP 1998-929555 | 19980615 |
| EP 988059 | B1 | 20051207 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY | | | | |
| GB 2365338 | A1 | 20020220 | GB 2001-26082 | 19980615 |
| GB 2365338 | B2 | 20020403 | | |
| JP 2002511754 | T2 | 20020416 | JP 1999-503953 | 19980615 |
| EP 1468698 | A2 | 20041020 | EP 2004-76964 | 19980615 |
| EP 1468698 | A3 | 20050323 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY | | | | |
| US 6867231 | B1 | 20050315 | US 2000-445865 | 20000211 |
| HK 1023069 | A1 | 20021011 | HK 2000-102240 | 20000413 |
| HK 1041824 | A1 | 20021115 | HK 2002-103701 | 20000413 |
| US 2003086933 | A1 | 20030508 | US 2002-99830 | 20020313 |
| PRIORITY APPLN. INFO.: | | | GB 1997-12370 | A 19970614 |
| | | | EP 1998-929555 | A3 19980615 |
| | | | GB 1999-28237 | A3 19980615 |

WO 1998-GB1731
US 2000-445865

W 19980615
A1 20000211

=> d his

(FILE 'HOME' ENTERED AT 16:03:45 ON 03 JAN 2006)

FILE 'CAPLUS' ENTERED AT 16:04:01 ON 03 JAN 2006

L1 1 S US 20030086933/PN
L2 20735 S RN
L3 93 S CB () 1954
L4 0 S L3 AND L2

FILE 'REGISTRY' ENTERED AT 16:05:24 ON 03 JAN 2006

L5 2902 S L2

FILE 'CAPLUS' ENTERED AT 16:06:06 ON 03 JAN 2006

SEL RN L1

FILE 'REGISTRY' ENTERED AT 16:06:28 ON 03 JAN 2006

L6 45 S E1-E45

FILE 'CAPLUS' ENTERED AT 16:09:35 ON 03 JAN 2006

L7 62737 S L6
L8 87 S L7 AND L3
L9 65 S L7 (L) L3
L10 73 S NQO2
L11 5 S L10 AND L9

=> s NQO1

L12 505 NQO1

=> s l12 and l9

L13 3 L12 AND L9

=> d ibib 1-3

L13 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:301733 CAPLUS

DOCUMENT NUMBER: 141:306746

TITLE: Quinone reductase-mediated nitro-reduction: clinical applications

AUTHOR(S): Knox, Richard J.; Chen, Shiuan

CORPORATE SOURCE: Enact Pharma PLC, Salisbury, SP4 0JQ, UK

SOURCE: Methods in Enzymology (2004), 382(Quinones and Quinone Enzymes, Part B), 194-221

CODEN: MENZAU; ISSN: 0076-6879

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

REFERENCE COUNT: 92 THERE ARE 92 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:749515 CAPLUS

DOCUMENT NUMBER: 140:121861

TITLE: CB 1954: From the Walker tumor to NQO2 and VDEPT

AUTHOR(S): Knox, Richard J.; Burke, Philip J.; Chen, Shiuan; Kerr, David J.

CORPORATE SOURCE: Enact Pharma PLC, Salisbury, UK

SOURCE: Current Pharmaceutical Design (2003), 9(26), 2091-2104
CODEN: CPDEFP; ISSN: 1381-6128

PUBLISHER: Bentham Science Publishers Ltd.

DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
REFERENCE COUNT: 97 THERE ARE 97 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:597759 CAPLUS
DOCUMENT NUMBER: 133:275962
TITLE: Bioactivation of 5-(aziridin-1-yl)-2,4-
dinitrobenzamide (CB 1954) by human NAD(P)H quinone
oxidoreductase 2: a novel co-substrate-mediated
antitumor prodrug therapy
AUTHOR(S): Knox, Richard J.; Jenkins, Terence C.; Hobbs, Stephen
M.; Chen, Shiuan; Melton, Roger G.; Burke, Philip J.
CORPORATE SOURCE: Enact Pharma Plc, Salisbury, SP4 0JQ, UK
SOURCE: Cancer Research (2000), 60(15), 4179-4186
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s DT () diaphorase
34025 DT
558 DTS
34532 DT
(DT OR DTS)
6506 DIAPHORASE
629 DIAPHORASES
6719 DIAPHORASE
(DIAPHORASE OR DIAPHORASES)
L14 1030 DT (W) DIAPHORASE

=> s l14 and l9
L15 21 L14 AND L9
=> s l15 not py>1997
7856621 PY>1997
L16 14 L15 NOT PY>1997
=> s l16 not py>1996
8617286 PY>1996
L17 13 L16 NOT PY>1996

=> d ibib 1-5

L17 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:794027 CAPLUS
DOCUMENT NUMBER: 123:275328
TITLE: Bioactivation of dinitrobenzamide mustards by an E.
coli B nitroreductase
AUTHOR(S): Anlezark, G. M.; Melton, R. G.; Sherwood, R. F.;
Wilson, W. R.; Denny, W. A.; Palmer, B. D.; Knox, R.
J.; Friedlos, F.; Williams, A.
CORPORATE SOURCE: Cent. Appl. Microbiol. Res., Porton
Down/Salisbury/Wilts., SP4 0JG, UK
SOURCE: Biochemical Pharmacology (1995), 50(5), 609-18
CODEN: BCPA6; ISSN: 0006-2952
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

L17 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1995:569763 CAPLUS
 DOCUMENT NUMBER: 123:106083
 TITLE: Catalytic properties of NAD(P)H:quinone acceptor
 oxidoreductase: study involving mouse, rat, human, and
 mouse-rat chimeric enzymes
 AUTHOR(S): Chen, Shiuan; Knox, Richard; Lewis, Alexander D.;
 Friedlos, Frank; Workman, Paul; Deng, Paulis S. K.;
 Fung, Maisie; Ebenstein, Donna; Wu, Kebin; Tsai,
 Ta-Ming
 CORPORATE SOURCE: Div. Immunol., Beckman Res. Inst. City Hope, Duarte,
 CA, 91010, USA
 SOURCE: Molecular Pharmacology (1995), 47(5), 934-9
 CODEN: MOPMA3; ISSN: 0026-895X
 PUBLISHER: Williams & Wilkins
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L17 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1994:44858 CAPLUS
 DOCUMENT NUMBER: 120:44858
 TITLE: The bioactivation of CB 1954 and its use as a prodrug
 in antibody-directed enzyme prodrug therapy (ADEPT)
 AUTHOR(S): Knox, Richard J.; Friedlos, Frank; Boland, Marion P.
 CORPORATE SOURCE: Sec. Drug Dev., Inst. Cancer Res., Sulton/Surrey, SM2
 5NG, UK
 SOURCE: Cancer and Metastasis Reviews (1993), 12(2), 195-212
 CODEN: CMRED4; ISSN: 0167-7659
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English

L17 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1993:73228 CAPLUS
 DOCUMENT NUMBER: 118:73228
 TITLE: Potentiation of CB 1954 cytotoxicity by reduced
 pyridine nucleotides in human tumor cells by
 stimulation of **DT diaphorase**
 activity
 AUTHOR(S): Friedlos, Frank; Biggs, Patrick J.; Abrahamson, Julie
 A.; Knox, Richard J.
 CORPORATE SOURCE: Sect. Drug Dev., Inst. Cancer Res., Sutton/Surrey, SM2
 5NG, UK
 SOURCE: Biochemical Pharmacology (1992), 44(9), 1739-43
 CODEN: BCPCA6; ISSN: 0006-2952
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L17 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1992:598410 CAPLUS
 DOCUMENT NUMBER: 117:198410
 TITLE: Metabolism of NAD(P)H by blood components. Relevance
 to bioreductively activated prodrugs in a targeted
 enzyme therapy system
 AUTHOR(S): Friedlos, Frank; Knox, Richard J.
 CORPORATE SOURCE: Sect. Drug Dev., Inst. Cancer Res., Sutton/Surrey, SM2
 5NG, UK
 SOURCE: Biochemical Pharmacology (1992), 44(4), 631-5
 CODEN: BCPCA6; ISSN: 0006-2952
 DOCUMENT TYPE: Journal
 LANGUAGE: English

L17 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
 AB NAD(P)H:quinone acceptor oxidoreductase (quinone reductase) (**DT-diaphorase**, EC 1.6.99.2) is involved in the process of reductive activation of cytotoxic antitumor quinones and nitrobenzenes. This study initially examined. . .
 IT **21919-05-1, CB 1954** 114560-48-4, EO9
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (catalytic properties of NAD(P)H:quinone acceptor oxidoreductase: study involving mouse, rat, human, and mouse-rat chimeric enzymes)

=> s 21919-05-1/rn
 169 21919-05-1
 5 21919-05-1D
 L18 167 21919-05-1/RN
 (21919-05-1 (NOTL) 21919-05-1D)

=> d his

(FILE 'HOME' ENTERED AT 16:03:45 ON 03 JAN 2006)
 FILE 'CAPLUS' ENTERED AT 16:04:01 ON 03 JAN 2006
 L1 1 S US 20030086933/PN
 L2 20735 S RN
 L3 93 S CB () 1954
 L4 0 S L3 AND L2
 FILE 'REGISTRY' ENTERED AT 16:05:24 ON 03 JAN 2006
 L5 2902 S L2
 FILE 'CAPLUS' ENTERED AT 16:06:06 ON 03 JAN 2006
 SEL RN L1
 FILE 'REGISTRY' ENTERED AT 16:06:28 ON 03 JAN 2006
 L6 45 S E1-E45
 FILE 'CAPLUS' ENTERED AT 16:09:35 ON 03 JAN 2006
 L7 62737 S L6
 L8 87 S L7 AND L3
 L9 65 S L7 (L) L3
 L10 73 S NQO2
 L11 5 S L10 AND L9
 L12 505 S NQO1
 L13 3 S L12 AND L9
 L14 1030 S DT () DIAPHORASE
 L15 21 S L14 AND L9
 L16 14 S L15 NOT PY>1997
 L17 13 S L16 NOT PY>1996
 L18 167 S 21919-05-1/RN

=> d kwic 4

L18 ANSWER 4 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
 IT 51-21-8, 5-FU **21919-05-1**, CB1954 23214-92-8, Doxorubicin
 33069-62-4, Paclitaxel 123948-87-8, Topotecan
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (inhibition of NF- κ B enhances the cytotoxicity of virus-directed enzyme prodrug therapy and oncolytic adenovirus cancer gene therapy)

=> d ibib 6-10

L18 ANSWER 6 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2005:465003 CAPLUS
 DOCUMENT NUMBER: 143:159026
 TITLE: Nitroarylmethylcarbamate prodrugs of doxorubicin for use with nitroreductase gene-directed enzyme prodrug therapy
 AUTHOR(S): Hay, Michael P.; Wilson, William R.; Denny, William A.
 CORPORATE SOURCE: Auckland Cancer Society Research Centre, Faculty of Medical and Health Sciences, The University of Auckland, Auckland, 92019, N. Z.
 SOURCE: Bioorganic & Medicinal Chemistry (2005), 13(12), 4043-4055
 CODEN: BMECEP; ISSN: 0968-0896
 PUBLISHER: Elsevier Ltd.
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 7 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:1050014 CAPLUS
 DOCUMENT NUMBER: 142:253968
 TITLE: The gene suicide system NTR/CB1954 causes ablation of differentiated 3T3L1 adipocytes by apoptosis
 AUTHOR(S): Felmer, Ricardo N.; Clark, John A.
 CORPORATE SOURCE: Department of Gene Expression and Development, Roslin Institute, Roslin, Midlothian, EH25 9PS, UK
 SOURCE: Biological Research (2004), 37(3), 449-460
 CODEN: BESEEB; ISSN: 0716-9760
 PUBLISHER: Society of Biology of Chile
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 8 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:1040532 CAPLUS
 DOCUMENT NUMBER: 142:253408
 TITLE: Nitroreductase: A prodrug-activating enzyme for cancer gene therapy
 AUTHOR(S): Searle, Peter F.; Chen, Ming-Jen; Hu, Longqin; Race, Paul R.; Lovering, Andrew L.; Grove, Jane I.; Guise, Chris; Jaberipour, Mansooreh; James, Nicholas D.; Mautner, Vivien; Young, Lawrence S.; Kerr, David J.; Mountain, Andrew; White, Scott A.; Hyde, Eva I.
 CORPORATE SOURCE: Cancer Research UK Institute for Cancer Studies, University of Birmingham, Edgbaston, UK
 SOURCE: Clinical and Experimental Pharmacology and Physiology (2004), 31(11), 811-816
 CODEN: CEXPB9; ISSN: 0305-1870
 PUBLISHER: Blackwell Publishing Asia Pty Ltd.
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English
 REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 9 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:965067 CAPLUS
 DOCUMENT NUMBER: 141:406039
 TITLE: Combinations for the treatment of diseases involving cell proliferation, migration or apoptosis of myeloma cells, or angiogenesis
 INVENTOR(S): Hilberg, Frank; Solca, Flavio; Stefanic, Martin; Friedrich, Baum, Anke; Munzert, Gerd; Van Meel,

PATENT ASSIGNEE(S): Jacobus C. A.
 Boehringer Ingelheim International G.m.b.H., Germany;
 Boehringer Ingelheim Pharma G.m.b.H. & Co. K.-G.
 SOURCE: PCT Int. Appl., 101 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|------------|
| WO 2004096224 | A2 | 20041111 | WO 2004-EP4363 | 20040424 |
| WO 2004096224 | A3 | 20041216 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| EP 1473043 | A1 | 20041103 | EP 2003-9587 | 20030429 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| PRIORITY APPLN. INFO.: | | | EP 2003-9587 | A 20030429 |
| | | | EP 2004-508 | A 20040113 |
| | | | EP 2004-1171 | A 20040121 |

L18 ANSWER 10 OF 167 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2004:941577 CAPLUS
 DOCUMENT NUMBER: 142:253791
 TITLE: Virus-directed enzyme prodrug therapy: intratumoral
 administration of a replication-deficient adenovirus
 encoding nitroreductase to patients with resectable
 liver cancer
 AUTHOR(S): Palmer, Daniel H.; Mautner, Vivien; Mirza, Darius;
 Oliff, Simon; Gerritsen, Winald; van der Sijp, Joost
 R. M.; Hubscher, Stefan; Reynolds, Gary; Bonney,
 Sarah; Rajaratnam, Ratna; Hull, Diana; Horne, Mark;
 Ellis, John; Mountain, Andrew; Hill, Simon; Harris,
 Peter A.; Searle, Peter F.; Young, Lawrence S.; James,
 Nicholas D.; Kerr, David J.
 CORPORATE SOURCE: Cancer Research UK Institute for Cancer Studies,
 Department of Pathology and Liver Research
 Laboratories, University of Birmingham, Edgbaston,
 Birmingham, UK
 SOURCE: Journal of Clinical Oncology (2004), 22(9), 1546-1552
 CODEN: JCONDN; ISSN: 0732-183X
 PUBLISHER: American Society of Clinical Oncology
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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(FILE 'HOME' ENTERED AT 16:03:45 ON 03 JAN 2006)

FILE 'CAPLUS' ENTERED AT 16:04:01 ON 03 JAN 2006

L1 1 S US 20030086933/PN
L2 20735 S RN
L3 93 S CB () 1954
L4 0 S L3 AND L2

L5 FILE 'REGISTRY' ENTERED AT 16:05:24 ON 03 JAN 2006
2902 S L2

FILE 'CAPLUS' ENTERED AT 16:06:06 ON 03 JAN 2006
SEL RN L1

L6 FILE 'REGISTRY' ENTERED AT 16:06:28 ON 03 JAN 2006
45 S E1-E45

L7 FILE 'CAPLUS' ENTERED AT 16:09:35 ON 03 JAN 2006
62737 S L6
L8 87 S L7 AND L3
L9 65 S L7 (L) L3
L10 73 S NQO2
L11 5 S L10 AND L9
L12 505 S NQO1
L13 3 S L12 AND L9
L14 1030 S DT () DIAPHORASE
L15 21 S L14 AND L9
L16 14 S L15 NOT PY>1997
L17 13 S L16 NOT PY>1996
L18 167 S 21919-05-1/RN

=> d l17 ibib kwic 4

L17 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1993:73228 CAPLUS

DOCUMENT NUMBER: 118:73228

TITLE: Potentiation of CB 1954 cytotoxicity by reduced
pyridine nucleotides in human tumor cells by
stimulation of **DT diaphorase**
activity

AUTHOR(S): Friedlos, Frank; Biggs, Patrick J.; Abrahamson, Julie
A.; Knox, Richard J.

CORPORATE SOURCE: Sect. Drug Dev., Inst. Cancer Res., Sutton/Surrey, SM2
5NG, UK

SOURCE: Biochemical Pharmacology (1992), 44(9), 1739-43

CODEN: BCPCA6; ISSN: 0006-2952

DOCUMENT TYPE: Journal

LANGUAGE: English

TI Potentiation of CB 1954 cytotoxicity by reduced pyridine nucleotides in
human tumor cells by stimulation of **DT diaphorase**
activity

AB The toxicity of CB 1954 [5-(aziridin-1-yl)-2,4-dinitrobenzamide] towards
human cells was greatly enhanced by NADH (when fetal calf serum was
present in the culture medium) and by nicotinamide riboside (reduced)
(NRH), but not by nicotinate riboside (reduced). Co-treatment of human
cells with CB 1954 and NADH resulted in the formation of crosslinks in
their DNA. The toxicity produced by other DNA crosslinking agents was
unaffected by reduced nicotinamide compds. When caffeine was included in
the medium, a reduction in the cytotoxicity of CB 1954 occurred. The toxicity
experienced by human cell lines after exposure to CB 1954 and NADH was
proportional to their levels of the enzyme **DT diaphorase**
[NAD(P)H dehydrogenase (quinone), (EC 1.6.99.2.)]. It is concluded that
NRH, which the authors have shown to be a co-factor for rat **DT**
diaphorase (Friedlos et al., Biochem Pharmacol 44; 25-31, 1992),
is generated from NADH by enzymes in fetal calf serum, and stimulates the
activity of human **DT diaphorase** towards CB 1954.

ST CB 1954 cytotoxicity reduced pyridine nucleotide; **DT**

diaphorase CB 1954 cytotoxicity NADH
 IT **58-68-4**, NADH 110-86-1D, Pyridine, reduced nucleotides
 1341-23-7 17720-18-2
 RL: BIOL (Biological study)
 (cytotoxicity of **CB 1954** potentiation by,
DT diaphorase stimulation in, in human cells)
 IT **21919-05-1, CB 1954**
 RL: PRP (Properties)
 (cytotoxicity of, reduced pyridine nucleotides enhancement of,
DT diaphorase stimulation in, in human cells)

=> d 117 kwic 1-13

L17 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
 AB . . . terms of ADEPT, SN 23862 has a potential advantage over CB 1954
 in that it is not reduced by mammalian **DT diaphorases**.
 Therefore, a series of compds. related to SN 23862 has been synthesized,
 and evaluated as potential prodrugs both by determination. . . cytotoxicity

in
 presence of enzyme and cofactor were not substrates for the enzyme. None
 of the analogs were activated by **DT diaphorase**
 isolated from Walter 256 carcinoma cells. For those compds. which were
 substrates for the E. coli nitroreductase, there was a . . .

IT 50-07-7, Mitomycin C 443-48-1, Metronidazole 4533-39-5, Nitracrine
 13551-87-6, Misonidazole 20063-73-4, Nitracrine N-oxide

21919-05-1, CB 1954 27314-97-2, Tirapazamine
 55743-71-0, SN 23163 136990-96-0, SN 24771 142439-52-9, SN 23428
 142439-53-0, SN 23759 142439-56-3, SN 23849 142439-57-4, SN 23777
 142439-61-0, SN 23862 142439-62-1, SN 23856 142439-63-2, SN 23816
 150271-87-7, SN 24927 150271-88-8, SN 24928 150271-89-9, SN 24926
 150271-91-3, SN 24939 150271-92-4, SN 24935 150271-93-5, SN 25015
 150271-94-6, SN 24971 150271-95-7, SN 25066 150271-96-8, SN 25079
 150271-98-0, SN 25263 150271-99-1, SN 25260 150272-00-7, SN 25261
 150272-01-8, SN 25313 150272-02-9, SN 25084 150272-03-0, SN 25188
 150503-17-6, SN 25246 156423-03-9, SN 25293 169527-43-9, SN 25402
 169527-44-0, SN 25507

RL: BAC (Biological activity or effector, except adverse); BPR (Biological
 process); BSU (Biological study, unclassified); THU (Therapeutic use);
 BIOL (Biological study); PROC (Process); USES (Uses)
 (bioactivation of dinitrobenzamide mustards by E. coli B
 nitroreductase)

L17 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
 AB NAD(P)H:quinone acceptor oxidoreductase (quinone reductase) (**DT-
 diaphorase**, EC 1.6.99.2) is involved in the process of reductive
 activation of cytotoxic antitumor quinones and nitrobenzenes. This study
 initially examined. . .

IT **21919-05-1, CB 1954** 114560-48-4, EO9
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
 (Biological study); PROC (Process)
 (catalytic properties of NAD(P)H:quinone acceptor oxidoreductase: study
 involving mouse, rat, human, and mouse-rat chimeric enzymes)

L17 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
 AB . . . in insensitive cells. Crosslink formation is due to the aerobic
 reduction of CB 1954 to form 5-(aziridin-1-yl)-4-hydroxylamino-2-
 nitrobenzamide by the enzyme **DT diaphorase**. The
 4-hydroxylamine can not crosslink DNA directly but requires further
 activation by a non-enzymic reaction with a thioester (such as acetyl
 CoA). As predicted from their measured **DT diaphorase**
 activities, a number of rat hepatoma and hepatocyte cell lines are also
 sensitive to CB 1954. However, no CB 1954-sensitive. . . human origin
 have been found. This is because the rate of reduction of CB 1954 by the

human form of **DT diaphorase** is much lower than that of the Walker enzyme (ratio of Kcat = 6.4). To overcome this intrinsic resistance of. . . (ADEPT). A nitroreductase enzyme has been isolated from E. coli that can bioactivate CB 1954 much more rapidly than Walker **DT diaphorase** and is very suitable for ADEPT. Thus CB 1954 may have a role in the therapy of human tumors.

IT 21919-05-1, CB 1954

RL: BIOL (Biological study)

(bioactivation of and use in antibody-directed enzyme prodrug therapy)

L17 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

TI Potentiation of CB 1954 cytotoxicity by reduced pyridine nucleotides in human tumor cells by stimulation of **DT diaphorase** activity

AB . . . experienced by human cell lines after exposure to CB 1954 and NADH was proportional to their levels of the enzyme **DT diaphorase** [NAD(P)H dehydrogenase (quinone), (EC 1.6.99.2.)]. It is concluded that NRH, which the authors have shown to be a co-factor for rat **DT diaphorase** (Friedlos et al., Biochem Pharmacol 44; 25-31, 1992), is generated from NADH by enzymes in fetal calf serum, and stimulates the activity of human **DT diaphorase** towards CB 1954.

ST CB 1954 cytotoxicity reduced pyridine nucleotide; **DT diaphorase** CB 1954 cytotoxicity NADH

IT 58-68-4, NADH 110-86-1D, Pyridine, reduced nucleotides 1341-23-7 17720-18-2

RL: BIOL (Biological study)

(cytotoxicity of **CB 1954** potentiation by, **DT diaphorase** stimulation in, in human cells)

IT 21919-05-1, CB 1954

RL: PRP (Properties)

(cytotoxicity of, reduced pyridine nucleotides enhancement of, **DT diaphorase** stimulation in, in human cells)

L17 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

AB . . . from human, fetal calf and horse sources was capable of driving the bioreductive activation of CB 1954 by the enzyme **DT diaphorase**. Cell surfaces oxidized NADH or NRH. These observations suggest that NAD(P)H would be unsuitable as a source of reducing equivalent. . .

IT 21919-05-1, CB 1954

RL: BIOL (Biological study)

(prodrug, bioreductive activation of, NADPH suitability for)

L17 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

IT Alkylating agents, biological

Cytotoxic agents

(CB 1954, DNA adducts and crosslinking by, in Walker 256 tumor cells, **DT diaphorase** bioactivation in relation to)

IT Deoxyribonucleic acids

RL: RCT (Reactant); RACT (Reactant or reagent)

(crosslinking of, with CB 1954, in Walker 256 tumor cells, **DT diaphorase** bioactivation and cytotoxic activity in relation to)

IT Animal cell line

(Walker carcinosarcoma, CB 1954 bioactivation by **DT diaphorase** in, cytotoxic activity and DNA adduct formation and crosslinking in relation to)

IT Deoxyribonucleic acids

RL: BIOL (Biological study)

(adducts, with CB 1954, in Walker 256 tumor cells, **DT diaphorase** bioactivation and cytotoxicity in relation to)

IT Pharmaceutical dosage forms

(prodrugs, CB 1954 as, in Walker 256 tumor cells, **DT diaphorase** activation and cytotoxic activity in relation to)

- IT **21919-05-1, CB 1954**
 RL: BIOL (Biological study)
 (DNA adduct and interstrand crosslink formation, in Walker 256 cells,
DT diaphorase bioactivation and cytotoxicity in
 relation to)
- L17 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
- TI The differences in kinetics of rat and human **DT**
diaphorase result in a differential sensitivity of derived cell
 lines to CB 1954 (5-(aziridin-1-yl)-2,4-dinitrobenzamide) [Erratum to
 document cited in CA115(1):332c].
- ST Erratum aziridinyldinitrobenzamide tumor sensitivity **DT**
diaphorase
- IT Neoplasm inhibitors
 ((aziridinyldinitrobenzamide as, tumor sensitivity to, in humans and
 laboratory animals, **DT diaphorase** kinetics in relation to
 (Erratum))
- IT **119643-82-2**
 RL: FORM (Formation, nonpreparative)
 (formation of, from **CB 1954**, **DT**
diaphorase of humans and laboratory animals induction of (Erratum))
- IT 21919-05-1
 RL: BIOL (Biological study)
 (tumor sensitivity to, of humans and laboratory animals, **DT**
diaphorase kinetics in relation to (Erratum))
- L17 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
- AB . . . the active form of CB 1954 (5-(aziridin-1-yl)-2,4-
 dinitrobenzamide). This hydroxylamine is formed by the bioedn. of CB
 1954 by the enzyme **DT diaphorase** and accounts for the
 highly selective cytotoxicity of this compound The reason why the
 hydroxylamine derivative is so cytotoxic is. . .
- IT 9032-20-6, **DT Diaphorase**
 RL: BIOL (Biological study)
 (CB 1954 bioactivation by, DNA interstrand crosslinking from,
 thioesters in, cytotoxicity in relation to)
- IT **21919-05-1, CB 1954**
 RL: BIOL (Biological study)
 (bioactivation of, DNA-DNA interstrand crosslinking in, thioesters in)
- IT **119643-82-2**
 RL: BIOL (Biological study)
 (reaction with DNA of, as **CB 1954** metabolite,
 thioesters effect on, cytotoxicity in relation to)
- L17 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN
- AB . . . cells defective or proficient in excision repair or repair of
 double strand breaks and/or with normal or reduced levels of **DT-**
diaphorase activity is reported to investigate the toxicity of a
 variety of bio-reductive agents under both aerobic and hypoxic conditions.
 The. . . for any one agent, may differ markedly under aerobic and
 hypoxic conditions. The studies also show that while the enzyme
DT-diaphorase plays a major role in determining mitomycin C
 (MM-C) toxicity under aerobic conditions, this is not true for hypoxic
 conditions.. . .
- IT 9032-20-6, **DT-diaphorase**
 RL: BIOL (Biological study)
 (Chinese hamster cell mutants deficient in, bio-reductive agents effect
 on)
- IT **21919-05-1, CB-1954** 27314-97-2, SR-4233
 88876-88-4, RSU-1069
 RL: BIOL (Biological study)
 (DNA repair- and reduction-deficient Chinese hamster cell mutants response
 to)

L17 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

- TI The differences in kinetics of rat and human **DT diaphorase** result in a differential sensitivity of derived cell lines to CB 1954 (5-(aziridin-1-yl)-2,4-dinitrobenzamide)
- AB **DT diaphorase** (NAD(P)H dehydrogenase (quinone), EC 1.6.99.2) isolated from Walker 256 rat carcinoma cells can convert CB 1954 to a cytotoxic DNA. . . CB 1954 when compared with other cells which are unable to carry out this reduction As predicted from their measured **DT diaphorase** activities a number of rat hepatoma and hepatocyte cell lines were also shown to be sensitive to CB 1954. However, no CB 1954-sensitive cell lines of human origin were found, although levels of **DT diaphorase** similar to those in the sensitive rat cells were present in these cells. The human cells were as sensitive as rat cells to the active form of CB 1954 (5-(aziridin-1-yl)-4-hydroxylamino-2-nitrobenzamide). **DT diaphorase**, purified to homogeneity from human Hep G2 cells, did metabolize CB 1954 to this 4-hydroxylamino product, but the rate of. . . 6.4). In addition, CB 1954 could be considered an inhibitor of, rather than a substrate for, the human form of **DT diaphorase**. The purified rat and human **DT diaphorases** possessed otherwise similar biochem. and mol. properties. These findings explain the decreased sensitivity towards CB 1954 of human cell lines. . .
- ST aziridinyldinitrobenzamide tumor sensitivity **DT diaphorase** kinetics
- IT Neoplasm inhibitors
((aziridinyldinitrobenzamide as, tumor sensitivity to, in humans and laboratory animals, **DT diaphorase** kinetics in relation to)
- IT **119643-82-2**
RL: FORM (Formation, nonpreparative)
(formation of, from **CB 1954**, **DT diaphorase** of humans and laboratory animals induction of)
- IT **21919-05-1, CB 1954**
RL: BIOL (Biological study)
(tumor sensitivity to, of humans and laboratory animals, **DT diaphorase** kinetics in relation to)

L17 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

- TI Caffeine, aminoimidazolecarboxamide and dicoumarol, inhibitors of NAD(P)H dehydrogenase (quinone) (**DT diaphorase**), prevent both the cytotoxicity and DNA interstrand crosslinking produced by 5-(aziridin-1-yl)-2,4-dinitrobenzamide (CB 1954) in Walker cells
- IT **21919-05-1, CB 1954**
RL: BIOL (Biological study)
(neoplasm inhibition by and DNA crosslinking from, NAD(P)H dehydrogenase inhibition in relation to)

L17 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

- AB . . . as estimated by SDS-polyacrylamide gel electrophoresis, was isolated from Walker cells and identified as a form of NAD(P)H dehydrogenase (quinone) (**DT diaphorase**, EC 1.6.99.2). This enzyme, in the presence of NADH or NADPH, catalyzed the aerobic reduction of CB 1954 to 5-(aziridin-1-yl)-4-hydroxylamino-2-nitrobenzamide.. . .
- IT **119643-82-2**
RL: FORM (Formation, nonpreparative)
(formation of, as **CB 1954** antitumor metabolite)
- IT **21919-05-1, CB 1954**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(neoplasm inhibition by, DNA crosslinking by metabolite in)

L17 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2006 ACS on STN

- AB . . . of its 4-nitro group to the corresponding hydroxylamino species.

The enzyme was identified as a form of NAD(P)H dehydrogenase (quinone) (DT diaphorase, menadione reductase (NMOR), phyloquinone reductase, quinone reductase, EC 1.6.99.2) by comparison of partial protein sequences, coenzymes, substrate and inhibitor specificities, .

IT 21919-05-1, CB 1954

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(neoplasm inhibition by, NADPH dehydrogenase activation of)

=> FIL REGISTRY

| | | |
|--|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 71.86 | 174.23 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| CA SUBSCRIBER PRICE | -9.00 | -9.00 |

FILE 'REGISTRY' ENTERED AT 16:22:31 ON 03 JAN 2006
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DICTIONARY FILE UPDATES: 2 JAN 2006 HIGHEST RN 870976-29-7

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*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=> S 1341-23-7/RN

L19 1 1341-23-7/RN

=> SET NOTICE 1 DISPLAY

NOTICE SET TO 1 U.S. DOLLAR FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=> D L19 SQIDE 1-

YOU HAVE REQUESTED DATA FROM 1 ANSWERS - CONTINUE? Y/(N):y
THE ESTIMATED COST FOR THIS REQUEST IS 6.36 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N:y

L19 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2006 ACS on STN

RN **1341-23-7** REGISTRY

CN Pyridinium, 3-(aminocarbonyl)-1- β -D-ribofuranosyl- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Pyridinium, 3-carbamoyl-1- β -D-ribofuranosyl- (8CI)

OTHER NAMES:

CN 3-Pyridinecarboxamide, 1- β -D-ribosyl-

CN Nicotinamide ribonucleoside

CN Nicotinamide ribose

CN Nicotinamide riboside

CN Ribosylnicotinamide

FS STEREOSEARCH

DR 19131-72-7, 20299-13-2

MF C11 H15 N2 O5

CI COM

LC STN Files: AGRICOLA, BEILSTEIN*, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CASREACT, EMBASE, MEDLINE, TOXCENTER, USPATFULL
(*File contains numerically searchable property data)

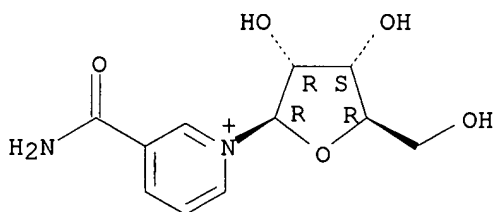
DT.CA CAPLUS document type: Conference; Journal; Patent; Report

RL.P Roles from patents: BIOL (Biological study); USES (Uses)

RL.NP Roles from non-patents: ANST (Analytical study); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation); PROC (Process); PRP (Properties); RACT (Reactant or reagent); USES (Uses); NORL (No role in record)

RLD.NP Roles for non-specific derivatives from non-patents: BIOL (Biological study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)

Absolute stereochemistry.



74 REFERENCES IN FILE CA (1907 TO DATE)

4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

74 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> SET NOTICE LOGIN DISPLAY

NOTICE SET TO OFF FOR DISPLAY COMMAND
SET COMMAND COMPLETED

=>

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

| | | |
|--|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 2.78 | 177.01 |
| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| CA SUBSCRIBER PRICE | 0.00 | -9.00 |

STN INTERNATIONAL LOGOFF AT 16:23:38 ON 03 JAN 2006

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LOGINID:SSSPTA1642BJF

PASSWORD:

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NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 SEP 09 ACD predicted properties enhanced in REGISTRY/ZREGISTRY
NEWS 4 OCT 03 MATHDI removed from STN
NEWS 5 OCT 04 CA/CAPLUS-Canadian Intellectual Property Office (CIPO) added
to core patent offices
NEWS 6 OCT 13 New CAS Information Use Policies Effective October 17, 2005
NEWS 7 OCT 17 STN(R) AnaVist(TM), Version 1.01, allows the export/download
of CAPLUS documents for use in third-party analysis and
visualization tools
NEWS 8 OCT 27 Free KWIC format extended in full-text databases
NEWS 9 OCT 27 DIOGENES content streamlined
NEWS 10 OCT 27 EPFULL enhanced with additional content
NEWS 11 NOV 14 CA/CAPLUS - Expanded coverage of German academic research
NEWS 12 NOV 30 REGISTRY/ZREGISTRY on STN(R) enhanced with experimental
spectral property data
NEWS 13 DEC 05 CASREACT(R) - Over 10 million reactions available
NEWS 14 DEC 14 2006 MeSH terms loaded in MEDLINE/LMEDLINE
NEWS 15 DEC 14 2006 MeSH terms loaded for MEDLINE file segment of TOXCENTER
NEWS 16 DEC 14 CA/CAPLUS to be enhanced with updated IPC codes
NEWS 17 DEC 16 MARPATprev will be removed from STN on December 31, 2005
NEWS 18 DEC 21 IPC search and display fields enhanced in CA/CAPLUS with the
IPC reform
NEWS 19 DEC 23 New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/USPAT2
NEWS EXPRESS JANUARY 03 CURRENT VERSION FOR WINDOWS IS V8.01,

CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
V8.0 USERS CAN OBTAIN THE UPGRADE TO V8.01 AT
<http://download.cas.org/express/v8.0-Discover/>

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| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 0.21 | 0.21 |

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 30, 2005 (20051230/UP).

| | | |
|----------------------|------------|---------|
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| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 0.06 | 0.27 |

FILE 'HOME' ENTERED AT 15:22:41 ON 06 JAN 2006

| | | |
|----------------------|------------|---------|
| => file caplus | | |
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 0.21 | 0.48 |

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FILE LAST UPDATED: 5 Jan 2006 (20060105/ED)

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<http://www.cas.org/infopolicy.html>

=> s reptil?

L1 4453 REPTIL?

=> s cancer? or tumor? or neoplas?

279751 CANCER?

413585 TUMOR?

434430 NEOPLAS?

L2 684933 CANCER? OR TUMOR? OR NEOPLAS?

=> s l2 (l) l1

L3 40 L2 (L) L1

=> s l3 and serum

539633 SERUM

16746 SERUMS

45550 SERA

9 SERAS

563711 SERUM

(SERUM OR SERUMS OR SERA OR SERAS)

L4 8 L3 AND SERUM

=> d ibib 1-4

L4 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:1001845 CAPLUS

DOCUMENT NUMBER: 143:263083

TITLE: Supersensitive immunoassays for diagnosing cancer and other diseases

INVENTOR(S): Drukier, Andrzej K.

PATENT ASSIGNEE(S): USA

SOURCE: PCT Int. Appl., 121 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| ----- | --- | ----- | ----- | ----- |
| WO 2005084283 | A2 | 20050915 | WO 2005-US6472 | 20050301 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, | | | |

AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
 RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG

US 2005272110 A1 20051208 US 2005-65347 20050225
 PRIORITY APPLN. INFO.: US 2004-548186P P 20040301
 US 2005-65347 A 20050225

L4 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:937823 CAPLUS
 DOCUMENT NUMBER: 140:193175
 TITLE: AMH/MIS: what we know already about the gene, the
 protein and its regulation
 AUTHOR(S): Rey, Rodolfo; Lukas-Croisier, Celine; Lasala, Celina;
 Bedecarras, Patricia
 CORPORATE SOURCE: Centro de Investigaciones Endocrinologicas, Hospital
 de Ninos R. Gutierrez, Buenos Aires, Argent.
 SOURCE: Molecular and Cellular Endocrinology (2003), 211(1-2),
 21-31
 CODEN: MCEND6; ISSN: 0303-7207
 PUBLISHER: Elsevier Science Ltd.
 DOCUMENT TYPE: Journal; General Review
 LANGUAGE: English
 REFERENCE COUNT: 128 THERE ARE 128 CITED REFERENCES AVAILABLE FOR
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE
 FORMAT

L4 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:76544 CAPLUS
 DOCUMENT NUMBER: 138:112401
 TITLE: Antitumor activity from alligator **serum**
 INVENTOR(S): Binah, Ofer; Ciechanover, Aaron; Maor, Gila
 PATENT ASSIGNEE(S): Natural Cure Ltd., Israel
 SOURCE: PCT Int. Appl., 56 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2003007874 | A2 | 20030130 | WO 2002-IL590 | 20020718 |
| WO 2003007874 | A3 | 20040318 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | |
| RW: | GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| CA 2454345 | AA | 20030130 | CA 2002-2454345 | 20020718 |
| EP 1435981 | A2 | 20040714 | EP 2002-751590 | 20020718 |
| R: | AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | |
| US 2004247589 | A1 | 20041209 | US 2004-761528 | 20040120 |
| PRIORITY APPLN. INFO.: | | | IL 2001-144447 | A 20010719 |
| | | | WO 2002-IL590 | W 20020718 |

L4 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:354512 CAPLUS

DOCUMENT NUMBER: 129:26318
TITLE: Comparison of the growth promoting effects of
serum transferrins from different animals on
mouse mammary tumor cell line GR2H6
AUTHOR(S): Shi, Min; Jing, Nai-He; Feng, You-Min
CORPORATE SOURCE: Shanghai Institute of Biochemistry, Chinese Academy of
Sciences, Shanghai, 200031, Peop. Rep. China
SOURCE: Shengwu Huaxue Yu Shengwu Wuli Xuebao (1998), 30(1),
101-103
CODEN: SHWPAU; ISSN: 0582-9879
PUBLISHER: Shanghai Kexue Jishu Chubanshe
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

=> d ibib 5-8

L4 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:59301 CAPLUS
DOCUMENT NUMBER: 124:109133
TITLE: Universal assay of vitellogenin as a biomarker for
environmental estrogens
AUTHOR(S): Heppell, Scott A.; Denslow, Nancy D.; Folmar, Leroy
C.; Sullivan, Craig V.
CORPORATE SOURCE: Department Zoology, North Carolina State University,
Raleigh, NC, 27695, USA
SOURCE: Environmental Health Perspectives Supplements (1995),
103(Suppl. 7), 9-15
CODEN: EHPSEO; ISSN: 1078-0475
PUBLISHER: National Institute of Environmental Health Sciences
DOCUMENT TYPE: Journal
LANGUAGE: English

L4 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1973:69615 CAPLUS
DOCUMENT NUMBER: 78:69615
TITLE: Parallel determinations of FDP [fibrinogen degradation
product] and fibrin monomers with various methods
AUTHOR(S): Hedner, U.; Nilsson, I. M.
CORPORATE SOURCE: Coagulation Lab., Allmanna Sjukhuset, Malmo, Swed.
SOURCE: Thrombosis et Diathesis Haemorrhagica (1972), 28(2),
268-79
CODEN: TDHAAT; ISSN: 0340-5338
DOCUMENT TYPE: Journal
LANGUAGE: English

L4 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:432692 CAPLUS
DOCUMENT NUMBER: 65:32692
ORIGINAL REFERENCE NO.: 65:6101e-h,6102a
TITLE: Modification of the electrokinetic response of blood
platelets to aggregating agents
AUTHOR(S): Hampton, J. R.; Mitchell, J. R. A.
CORPORATE SOURCE: Radcliffe Infirmary Oxford, UK
SOURCE: Nature (London, United Kingdom) (1966), 210(5040),
1000-2
CODEN: NATUAS; ISSN: 0028-0836
DOCUMENT TYPE: Journal
LANGUAGE: English

L4 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1938:60634 CAPLUS
DOCUMENT NUMBER: 32:60634
ORIGINAL REFERENCE NO.: 32:8526c-h

TITLE: Comparative physiology of the vertebrate hypophysis
(anterior and intermediate lobes)
AUTHOR(S): Witschi, Emil
SOURCE: Cold Spring Harbor Symposia on Quantitative Biology
(1937), 5, 180-90
CODEN: CSHSAZ; ISSN: 0091-7451
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|----------------------|------------------|---------------|
| FULL ESTIMATED COST | 20.25 | 20.73 |

STN INTERNATIONAL LOGOFF AT 15:24:37 ON 06 JAN 2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1642BJF

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * Welcome to STN International * * * * *

| | | |
|---------|--------|---|
| NEWS 1 | | Web Page URLs for STN Seminar Schedule - N. America |
| NEWS 2 | | "Ask CAS" for self-help around the clock |
| NEWS 3 | JAN 17 | Pre-1988 INPI data added to MARPAT |
| NEWS 4 | FEB 21 | STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results |
| NEWS 5 | FEB 22 | The IPC thesaurus added to additional patent databases on STN |
| NEWS 6 | FEB 22 | Updates in EPFULL; IPC 8 enhancements added |
| NEWS 7 | FEB 27 | New STN AnaVist pricing effective March 1, 2006 |
| NEWS 8 | MAR 03 | Updates in PATDPA; addition of IPC 8 data without attributes |
| NEWS 9 | MAR 22 | EMBASE is now updated on a daily basis |
| NEWS 10 | APR 03 | New IPC 8 fields and IPC thesaurus added to PATDPAFULL |
| NEWS 11 | APR 03 | Bibliographic data updates resume; new IPC 8 fields and IPC thesaurus added in PCTFULL |
| NEWS 12 | APR 04 | STN AnaVist \$500 visualization usage credit offered |
| NEWS 13 | APR 12 | LINSPEC, learning database for INSPEC, reloaded and enhanced |
| NEWS 14 | APR 12 | Improved structure highlighting in FQHIT and QHIT display in MARPAT |
| NEWS 15 | APR 12 | Derwent World Patents Index to be reloaded and enhanced during second quarter; strategies may be affected |

NEWS 16 MAY 10 CA/CAPLUS enhanced with 1900-1906 U.S. patent records
 NEWS 17 MAY 11 KOREAPAT updates resume
 NEWS 18 MAY 19 Derwent World Patents Index to be reloaded and enhanced
 NEWS 19 MAY 30 IPC 8 Rolled-up Core codes added to CA/CAPLUS and
 USPATFULL/USPAT2
 NEWS 20 MAY 30 The F-Term thesaurus is now available in CA/CAPLUS
 NEWS 21 JUN 02 The first reclassification of IPC codes now complete in
 INPADOC

NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
 CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
 AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
 V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT
<http://download.cas.org/express/v8.0-Discover/>

NEWS HOURS STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN Welcome Banner and News Items
 NEWS IPC8 For general information regarding STN implementation of IPC 8
 NEWS X25 X.25 communication option no longer available after June 2006

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:43:29 ON 14 JUN 2006

=>

Uploading

THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE

Do you want to switch to the Registry File?

Choice (Y/n):

Switching to the Registry File...

Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

| | | |
|----------------------|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 0.21 | 0.21 |

FILE 'REGISTRY' ENTERED AT 12:44:03 ON 14 JUN 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 JUN 2006 HIGHEST RN 887650-39-7

DICTIONARY FILE UPDATES: 13 JUN 2006 HIGHEST RN 887650-39-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

```
*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information.  *
*
*****
```

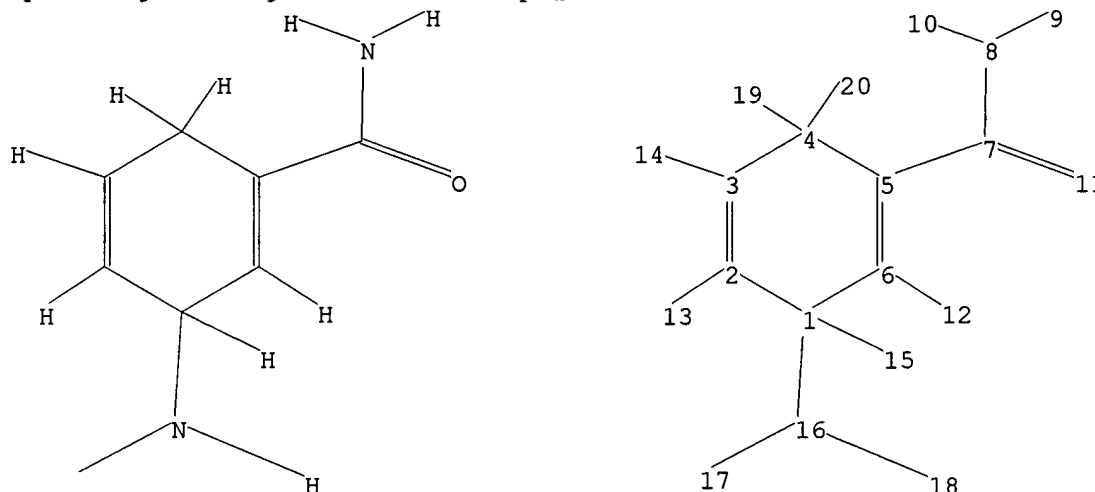
Structure search iteration limits have been increased. See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10099830.str



chain nodes :

7 8 9 10 11 12 13 14 15 16 17 18 19 20

ring nodes :

1 2 3 4 5 6

chain bonds :

1-15 1-16 2-13 3-14 4-19 4-20 5-7 6-12 7-8 7-11 8-9 8-10 16-17 16-18

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

1-2 1-6 1-16 2-3 3-4 4-5 5-6 7-8 7-11 16-17

exact bonds :

1-15 2-13 3-14 4-19 4-20 5-7 6-12 8-9 8-10 16-18

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:CLASS 10:CLASS
11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS
19:CLASS 20:CLASS

L1 STRUCTURE UPLOADED

=> s l1

SAMPLE SEARCH INITIATED 12:44:32 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 5232 TO ITERATE

38.2% PROCESSED 2000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
 BATCH **COMPLETE**
PROJECTED ITERATIONS: 100303 TO 108977
PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 12:44:53 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 104298 TO ITERATE

100.0% PROCESSED 104298 ITERATIONS 0 ANSWERS
SEARCH TIME: 00.00.01

L3 0 SEA SSS FUL L1

=> hold

HOLD IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=>

=>

Executing the logoff script...

=> LOG H

| | | |
|----------------------|------------|---------|
| COST IN U.S. DOLLARS | SINCE FILE | TOTAL |
| | ENTRY | SESSION |
| FULL ESTIMATED COST | 167.38 | 167.59 |

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 12:45:27 ON 14 JUN 2006

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSSPTA1642BJF

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * *
SESSION RESUMED IN FILE 'REGISTRY' AT 12:49:21 ON 14 JUN 2006
FILE 'REGISTRY' ENTERED AT 12:49:21 ON 14 JUN 2006
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